NEW CONSTRUCTION ACTIVITIES

The situation in the construction field shows further signs of renewed activity, and general conditions on the whole have improved slightly. Dun's Review reports a slight gain in the gross earnings of the railroads for the first two weeks of December over both preceding months. This gain, of course, was not due to the recent rate increase, which was not then announced. The markets are still dull, but five eastern roads are reported to be negotiating for 170,000 tons of rails, and a Pacific coast system is said to have placed a large order for steel passenger cars for extra traffic to the Panama-Pacific Exposition. It is further announced that the Baltimore & Ohio shops at Mount Claire, which were closed down early in December, will open on full time on Jan. 4. Canadian manufacturers of steel products are arranging their shops to keep busy as far as possible on the manufacture of war materials such as can be fabricated with their present equipment.

The market absorbed several more issues of municipal and county improvement bonds, notably the $900,000 4½ per cent dock bonds sold at 104.033 in the New York market by the city of Newark.

Buildings

Building work is more active than last week. It is announced that $200,000 is available to continue work on the Cathedral of St. John the Divine in New York. Contracts were awarded at $238,000 for a new courthouse in the Borough of Richmond, New York City. At Cincinnati the directors of the University of Cincinnati awarded contracts at $178,000 for a new chemical building. Bids for a 13-story hotel at Columbus, Ohio, are being received. Pittsburgh is preparing plans for a new $265,000 high school. The University of Wisconsin awarded a contract at $180,000 for a new physics laboratory. Two large State capital contracts are reported, one awarded, for stone work, at $480,000, at Madison, Wis., and one for $1,500,000, to be let in January at Oklahoma City. A contract for $205,000 was awarded for a city hall at Galveston. In St. Paul a contract was let for a $1,000,000 stone building. On the Pacific coast a contract for $85,000 for an extension to a hospital in Vancouver was awarded and it is reported bids will be asked next month on a $100,000 hotel at Olympia, Wash.

Bridges

Eight or ten moderate sized bridge projects are reported. A $40,000 bridge will be let at Covington, Ind., on Jan. 7. A Canadian firm has contracted for a bridge to cost $91,000 at St. Catharines, Ont. From Wallkill, N. Y., Lake Charles, Ga., Anthony and Topeka, Kans., and Glen Alen, Va., come notices of reinforced concrete bridges on which bids are desired.

Paving

Bids on considerable road work are asked in Maryland. From the South and the Pacific coast comes promise of road work in the sale of bond issues ranging from $60,000 at De Vall Bluff, Ark., to $1,000,000 at Seattle. A contract for $58,000 worth of paving was awarded at Ontario, Cal. Bids are desired on road work at San Antonio, Tex., where $229,000 is available in cash.

Waterworks, Sewers and Hydraulics

There is little activity in this line, though the water department at Baltimore has bought $157,000 worth of cast iron pipe. Laurel, Md., has asked for bids to enlarge its filtration and sewage disposal plants at a cost of $50,000. Cleveland has contracted for operating machinery for its filtration plant at $133,500. In the middle West a contract for two reservoir dams was let at Ottumwa, Ia., for $50,000. In the city of New York bids have been opened on sewer work to cost $143,000. Low bid on section 11, Passaic Valley main intercepting sewer was for $160,741. At North Plainfield, N. J., bids were opened on sewer work, to cost $72,600, and a contract for sewer work at Dunellen, N. J., was awarded at $82,600.

One irrigation project was awarded at Fort Shaw, Mont., for $43,700.

Miscellaneous

Bids for the New York State barge canal terminal have been opened, and the low bid was $42,742. The United States Government desires bids on steel for Pier No. 7, Cristobal terminal docks, and for 630,000 cu. yd. of levee work in the Vicksburg district. The Public Service Commission will advertise this month bids for Section 2, Route 12, of the Eastern Parkway sewer in Brooklyn. The bill appropriating $194,000 for the removal of Coenties Reef has passed the House, and is expected to pass the Senate. It stipulates that the City of New York shall contribute $50,000 additional to the work.

It is reported that the signing of several new subway contracts in New York has been held up pending the settlement of the suit brought to oust alien labor from this work, and, as the delay means discontinuation of further signing of contracts and progress of work, it is to be hoped that this important matter will be adjusted in the near future.

Contracting News

Of Special Interest to Engineers, Contractors, Builders and Manufacturers of Engineering and Building Supplies

WATERWORKS.

Items Arranged Geographically

Boston, Mass.—Bids desired until Jan. 6 by City Superintendent of Supplies for furnishing 3,765 tons 4 to 30-in. pipe and about 200 tons special castings.

Providence, R. I.—According to preliminary reports of experts J. G. White & Co., New York; Allen Hazen, New York; X. H. Goodnow, of Massachusetts, Bd. of Health, and Fred P. Stearns, of Boston, it will cost $9,000,000 to $10,000,000 to provide city with an increased supply, and they recommend the Scitvate site as the best source of supply.

Warwick, R. I.—O. Perry Sarle, of Providence, has been selected by Taxpayers Water Com. to investigate sources of water supply in town; also outside town for a gravity water system.

Albany, N. Y.—W. Greenlach, Comr. Pub. Wks., advocates metering all the water service.

Pittsburgh, Pa.—Bids desired until Jan. 8 at office of City Controller for furnishing and delivering boiler feed pump, heater and appurtenances in Herron Hill Pumping Station, Contr. No. 2-E.

★**Baltimore, Md.** — Contracts reported awarded Dec. 23 by Bd. of Awards for the Water Dept. as follows: To Warren Fdry. & Machine Co., Phillipsburg, N. J., at $157,642, for c.-i. pipe and special castings; to Thompsen Chemical Co., Baltimore, for calcium hypochlorite to be used in treating in the reservoirs, at $9,765, and Pennsylvania Salt Co., Philadelphia, for sulphate of alumina, at $5,955.

Laurel, Md.—H. S. Phelps, Clk. to Council, writes bids will be received in January for extension of distributing system, filtration plant and sewage disposal works, from plans of Harry Stevens, of Washington, D. C.; total cost about $50,000.

Takoma Park (P. O. Washington), D. C.—The Water and Sewer Com. through its chairman has recommended to the Town Council adoption of general plan for a reservoir and the improvements of the present municipal water works, from plans of Harry Stevens, Union Trust Bldg., Washington, D. C.; cost about $10,000.

Clearwater, Fla.—Bids reported desired until Jan. 15 for extensions to waterworks system. R. T. Daniels, City Clk.

Philadelphia, Miss.—The Mayor and Bd. of Aldermen are reported to have decided to issue $30,000 bonds for construction of water works.

Louisville, Ky.—Bids desired until Jan. 8 by Bd. Pub. Wks. for erecting fire hydrants in a number of streets.

Cincinnati, O.—Bids desired until Jan. 6 by Director Pub. Service for laying c.-i. pipe, special castings and valves in portions of Tennessee Ave., Brotherton Rd. and several other streets; also furnishing and delivering cast steel valve decks and chambers for pumping engines at River Station, California; also furnishing and delivering valves for water distribution system of Cincinnati.

★**Cleveland, O.**—Contract awarded by Bd. of Control for Contract 4—Furnish and place filter equipment and operating machinery in filtration plant, to M. L. Bayard, Philadelphia, Pa., at $133,500 (Bids opened Dec. 8).

★Contract awarded by Bd. of Control, to R. D. Wood & Co., Philadelphia, Pa., for fire hydrants for Dept of Pub. Utilities, at $25,545 (bids opened Dec. 18).

Shadyside, O.—There is reported to be a movement on foot here looking to construction of water works.

Lansing, Mich.—The question of water works distribution improvements being discussed, but no definite plans have yet been adopted. G. G. Crane, Mgr. Bd. Water and Electric Light Comrs.

Orion, Mich.—Village Trustees reported to have engaged Patk. W. Keating, 149 Harrison Ave., Detroit, as consulting engineer for the proposed water works for which citizens voted to issue $34,500 bonds.

★**Kansas, Ill.**—Contract for the distributing system of the water works has been awarded to T. A. Hardman, of Olney, at $8,352. Work consists of 300 ft. 8-in. c.-i. pipe, 3960 ft. 6-in. and 10,040 ft. 4-in., 8444 lbs. special castings, 38 fire hydrants, with valves, including boxes. C. L. James, Engr., Mattoon.

Manitowoc, Wis.—Engineer C. H. Bowlan, of Chicago, Ill., is reported to have recommended that the municipal water and light plants be combined, at a cost of $150,000. He also recommends construction of an intake at pumping station to cost $65,000.

McCune, Kan.—Bids reported desired until Jan. 15 by City Clerk for $22,000 bonds to be used for constructing water works. Henrici, Kent & Lowry, Engrs., Reserve Bank Bldg., Kansas City, Mo.

Pretty Prairie, Kan.—W. H. Hanes, City Clk., writes Rollins & Co., of Kansas City, Mo., are preparing plans for water works; election Jan. 18.

Norfolk, Neb.—Water extension bonds in the sum of $10,000 reported sold.

Butler, Mo.—Water bonds in the sum of $75,000 have been sold by City Council.

Oklahoma City, Okla.—An election will be held Jan. 15 to vote on issuing $240,000 bonds, to be used for construction of dams and reservoirs on and near Canadian River, several miles west of city, and make proper connections with city system. W. M. Grant, Mayor.

Wilburton, Okla.—The Benham Eng. Co., Oklahoma City, engaged to prepare plans for water works and a sewer system, to cost about $60,000. Election about Mar. 1.

Ephrata, Wash. — Avery Chambers, Town Clk., writes citizens voted Dec. 8 to issue $19,000 bonds to be used for construction of water works.

Ogden, Utah. — Washington Jenkins, City Engr., writes that no final estimate has yet been made for the proposed pipe line from Coldwater to the artesian wells in Ogden Canyon; it will be of wood stave, 36, 30 and 24-in. diam., 28,700 ft. in length. Cost about $100,000.

Montreal, Que.—All bids opened Dec. 15 by Bd. City Comrs. (L. N. Senecal, Secy.) for constructing Elgin Basin Pumping Station, have been rejected, and new bids will be received Jan. 12.

Empress, Alta.—It is proposed to construct water works, to cost about $65,000, but nothing will be done for about 6 months; not yet voted upon. Engineer, John Galt Eng. Co., Ltd., Judge Travis Bldg., Calgary.

Winnipeg, Man.—Bids desired until Jan. 18 by S. H. Reynolds, Chmn. Comrs., Boyd Bldg., for furnishing gravel pit excavation, screenings, elevation and crushing machinery, also locomotive and cars for pit and for railway service, for Greater Winnipeg Water Service.

Panama.—Bids desired until Jan. 7 at office of General Purchasing Officer, Panama Canal, Washington, D. C., for Circular 887—furnishing wrought iron or steel pipe, etc.

SEWERAGE AND SEWAGE DISPOSAL.

Items Arranged Geographically

Reading, Mass.—According to recent report filed with the Massachusetts House of Representatives by the Metropolitan Water and Sewerage Bd. and the State Bd. of Health of Boston appointed by Legislature to investigate the cost and feasibility of the admission of Reading to the Metropolitan Sewerage Dist., recommends the admission of town to district in the usual manner; engineers of the joint board estimates cost of this addition to the Metropolitan system at $283,000.

Rome, N. Y.—Plans will probably be completed in January for the construction of a sewage disposal plant.

Millburn, N. J.—Wm. Byrd, of Short Hills, has completed and presented to Township Com. plans for road and storm sewer improvements in Wyoming Section, which he estimates at $95,000.

★*Items marked thus give the names of parties awarded contracts.*

North Plainfield, N. J.—Bids were opened Dec. 8 by Borough Clerk for collecting a sewage collecting system and outfall sewer from plans of Geo. W. Fuller, 170 Bway., New York; 18 bids were received on sewage collecting system and outfall sewer Contract No. 1, ranging from $72,598 to $111,792, and 15 bids were received on sewage collecting system Contract No. 2, ranging from $63,878 to $99,738. The lowest bid on Contract 2 was withdrawn on account of an error, and this leaves Frank Puglia, Paterson, at $70,157, lowest on this section.

★Following are unit prices on Engineer's estimate and 3 lowest bids on North Plainfield sewage collecting system and outfall sewer, **Contract No. 1:** (a) Engineer's estimate: (a) $86,819; (b) Harrison & Burton Co., New York, N. Y., $72,598 (awarded contract); (c) John C. Schrader, Inc., Brooklyn, N. Y., $72,772; (d) H. C. Brooks Co., Martinsburg, W. Va., $77,322.

	(a)	*(b)	(c)	(d)
200 lin. ft. 8-in., 0-6 ft. deep	$0.47	$0.44	$0.40	$0.45
10,000 lin. ft. 8-in., 6-8 ft. deep	.59	.44	.47	.45
4,000 lin. ft. 8-in., 8-10 ft. deep	.73	.57	.59	.65
1,000 lin. ft. 8-in., 10-12 ft. deep	.92	.82	.85	.85
100 lin. ft. 8-in., 12-14 ft. deep	1.17	1.40	.97	1.35
100 lin. ft. 8-in., 14-16 ft. deep	1.47	2.00	1.50	1.85
100 lin. ft. 15-in., 0-6 ft. deep	.94	.89	.77	1.00
100 lin. ft. 15-in., 6-8 ft. deep	1.07	.95	.85	1.15
200 lin. ft. 15-in., 8-10 ft. deep	1.25	1.05	1.05	1.40
600 lin. ft. 15-in., 10-12 ft. deep	1.49	1.15	1.30	1.60
800 lin. ft. 15-in., 12-14 ft. deep	1.79	1.40	1.45	1.90
900 lin. ft. 15-in., 14-16 ft. deep	2.15	2.00	2.00	2.25
300 lin. ft. 15-in., 16-18 ft. deep	2.59	2.50	2.60	2.75
200 lin. ft. 15-in., 18-20 ft. deep	3.10	3.00	3.00	3.35
100 lin. ft. 15-in., 20-22 ft. deep	3.70	4.00	3.50	4.40
150 lin. ft. 24-in., 0-6 ft. deep	2.00	1.48	1.60	1.80
200 lin. ft. 24-in., 6-8 ft. deep	2.17	1.58	1.75	1.95
500 lin. ft. 24-in., 8-10 ft. deep	2.39	1.68	1.90	2.15
900 lin. ft. 24-in., 10-12 ft. deep	2.68	1.88	2.20	2.35
1,300 lin. ft. 24-in., 12-14 ft. deep	3.05	2.10	2.40	2.65
1,900 lin. ft. 24-in., 14-16 ft. deep	3.42	2.50	2.90	3.05
2,700 lin. ft. 24-in., 16-18 ft. deep	4.05	3.00	3.50	3.60
1,700 lin. ft. 24-in., 18-20 ft. deep	4.67	3.50	3.95	4.20
100 lin. ft. 24-in., 20-22 ft. deep	5.40	4.00	4.70	5.15
Y-branches:				
600 5-in., on 8-in. pipe	.60	.40	.30	.45
100 5-in., on 15-in. pipe	.98	.85	.90	1.10
250 5-in., on 24-in. pipe	2.01	2.10	2.00	2.75
800 5-in. ⅛-bends	.36	.25	.20	.30
350 5-in. V-branches	.61	.35	.40	.75
2,000 lin. ft. 5-in. vitr. pipe risers	.76	.75	.60	.50
5,000 lin. ft. 5-in. house connections	.46	.40	.40	.45
1,700 lin. ft. laying 6-in. c.-i. force main	.32	.30	.30	.35
720 lin. ft. laying 24-in. c.-i. pipe line in balustrade	.82	.50	.65	1.00
500 lin. ft. laying 24-in. c.-i. pipe line, 0-6 ft. deep	1.15	.75	.95	1.25
700 lin. ft. ½-in. galv.-iron pipe line	.25	.25	.20	.25
160 tons c.-i. pipe	23.00	22.50	22.00	22.50
5 tons c.-i. specials	55.00	57.00	60.00	60.00
85 manholes	55.00	60.00	45.00	54.00
17 flush tanks	70.00	65.00	90.00	70.00
Sewage pumping station, West End Ave., nr. Gr'n B'k, (lump sum)	2,793.00	1,839.00	4,200.00	2,860.00
Machinery in sewage pumping station (lump sum)	2,960.00	3,740.00	3,200.00	3,740.00
1 M ft. lumber for foundations	45.00	30.00	40.00	40.00
200 lin. ft. piles	.50	.30	.50	.50
10 M ft. sheathing left in place	35.00	30.00	20.00	30.00
500 cu. yds. excav. and embankment	1.00	.70	1.00	2.00
100 cu. yds. extra earth excav	.60	1.50	1.00	1.00
100 cu. yds. rock excav	3.00	2.00	3.00	1.50
1,000 cu. yds. earth fill	1.00	.60	.30	.50
50 cu. yds. stone and gravel fill	2.00	2.00	2.00	2.00
200 cu. yds. concrete	9.00	7.00	6.50	6.00
260 cu. yds. concrete balustrade	20.00	17.50	7.50	8.00
8,000 lbs. steel reinforcement	.04	.04	.03	.04
11,700 sq. yds. resurfacing macadam	.30	.35	.20	.21

★Following are unit prices on Engineer's estimate and 3 lowest bids on North Plainfield sewage collecting system, **Contract No. 2:** (a) Engineer's estimate, $80,534; (b) Frank Puglia, Paterson, N. J., $70,157 (awarded contract); (c) John C. Schrader, Inc., Brooklyn, $71,817; (d) Harrison-Burton Co., New York, N. Y., $74,342.

Vitr. Pipe Sewer:	(a)	*(b)	(c)	(d)
3,100 lin. ft. 8-in., 0-6 ft. deep	$0.47	$0.43	$0.40	$0.47
39,400 lin. ft. 8-in., 6-8 ft. deep	.59	.55	.47	.49
10,800 lin. ft. 8-in., 8-10 ft. deep	.73	.70	.59	.62
300 lin. ft. 8-in., 10-12 ft. deep	.92	1.10	.85	.89
100 lin. ft. 8-in., 12-14 ft. deep	1.17	1.50	.97	1.42
100 lin. ft. 8-in., 14-16 ft. deep	1.47	2.00	1.50	2.22
200 lin. ft. 10-in., 0-6 ft. deep	.59	.50	.47	.54
1,900 lin. ft. 10-in., 6-8 ft. deep	.71	.60	.55	.53
1,000 lin. ft. 10-in., 8-10 ft. deep	.16	.90	.66	.69
900 lin. ft. 10-in., 10-12 ft. deep	1.06	1.15	.93	.96
100 lin. ft. 10-in., 12-14 ft. deep	1.32	1.50	1.05	1.74
1,400 lin. ft. 12-in., 0-6 ft. deep	.71	.65	.55	.49
1,500 lin. ft. 12-in., 6-8 ft. deep	.84	.75	.64	.63
1,200 lin. ft. 12-in., 8-10 ft. deep	1.01	1.00	.79	.74
800 lin. ft. 12-in., 10-12 ft. deep	1.22	1.30	1.00	.91
200 lin. ft. 12-in., 12-14 ft. deep	1.50	1.55	1.12	1.54
100 lin. ft. 12-in., 14-16 ft. deep	1.83	2.00	1.66	2.50
100 lin. ft. 15-in., 0-6 ft. deep	.94	.80	.77	.89
100 lin. ft. 15-in., 6-8 ft. deep	1.07	.85	.85	1.00
300 lin. ft. 15-in., 8-10 ft. deep	1.25	1.15	1.05	1.15
500 lin. ft. 15-in., 10-12 ft. deep	1.49	1.50	1.30	1.27
200 lin. ft. 15-in., 12-14 ft. deep	1.79	2.00	1.45	1.40
100 lin. ft. 15-in., 14-16 ft. deep	2.15	2.50	2.00	2.55
100 lin. ft. 15-in., 16-18 ft. deep	2.59	3.00	2.60	2.75
100 lin. ft. 18-in., 0-6 ft. deep	1.23	.90	1.00	1.05
100 lin. ft. 18-in., 6-8 ft. deep	1.38	1.20	1.10	1.16
100 lin. ft. 18-in., 8-10 ft. deep	1.58	1.50	1.20	1.31
100 lin. ft. 18-in., 10-12 ft. deep	1.83	1.70	1.50	1.43
100 lin. ft. 18-in., 12-14 ft. deep	2.15	1.95	1.67	1.75
100 lin. ft. 18-in., 14-16 ft. deep	2.54	2.50	2.22	2.50
200 lin. ft. 18-in., 16-18 ft. deep	3.02	3.25	2.65	2.90
100 lin. ft. 18-in., 18-20 ft. deep	3.56	4.00	3.07	3.25
100 lin. ft. 18-in., 20-22 ft. deep	4.20	4.50	3.91	4.00
Y-branches:				
2,100 5-in., on 8-in. pipe	.60	.40	.30	.40
160 5-in., on 10-in. pipe	.71	.75	.40	.70
200 5-in., on 12-in. pipe	.82	2.00	.45	.90
50 5-in., on 15-in. pipe	.98	2.20	.90	1.40
30 5-in., on 18-in. pipe	1.25	2.25	1.20	1.75
1,200 5-in. ⅛-bends	.36	.35	.20	.25
30 5-in. V-branches	.61	.90	.40	.35
100 lin. ft. 5-in. vitr. pipe risers	.76	1.00	.80	1.00
18,000 lin. ft. 5-in. house connections	.46	.30	.40	.45
2,400 lin. ft. ½-in. galv.-iron pipe line	.25	.30	.20	.30
20 tons c.-i. pipe	23.00	24.00	22.00	21.00
2 tons c.-i. specials	55.00	75.00	60.00	60.00
170 manholes	40.00	35.00	40.00	40.00
60 flush tanks	70.00	75.00	90.00	70.00
Str'm Crossing, Stony Brook and Chestnut St. Extension (lump sum)	350.00	100.00	350.00	750.00
3 M ft. lumber for foundations	45.00	65.00	40.00	30.00
300 lin. ft. piles	.50	1.00	.50	1.00
10 M ft. sheathing left in place	35.00	40.00	20.00	30.00
100 cu. yds. extra earth excav	.60	2.00	1.00	.60
500 cu. yds. rock excav	3.00	1.50	3.00	2.25
100 cu. yds. earth fill	1.00	.40	.30	.50
100 cu. yds. stone and gravel fill	2.00	2.50	2.00	2.00
50 cu. yds. concrete	9.00	6.00	6.50	10.00
500 lbs. steel reinforcement	.04	.05	.03	.05
28,500 sq. yds. resurfacing macadam	.30	.15	.35	.35

★*Items marked thus give the names of parties awarded contracts.*

★**Dunellen, N. J.**—Bids were opened Dec. 7 by Borough Council for constructing a sewage collecting system from plans of Geo. W. Fuller, 170 Bway., New York, N. Y., and in all 23 bids were received ranging from $82,604 to $171,722. Following are totals of Engineer's estimate and 6 lowest bids: (a) Engineer's estimate, $91,624; (b) H. K. Corbin & Co., Inc., New York, $82,604 (awarded contract); (c) Bruno Pizzimento, Seneca Falls, N. Y., $84,115; (d) Dinapoli-Toriello Constr. Co., Hackensack, $86,805; Cantrell Constr. Co., Philadelphia, Pa., $89,577; John C. Schrade, Brooklyn, $90,361; Fusco Constr. Co., Newark, $92,343.

Unit prices of a, b, c and d:

Vitr. Pipe Sewer:	(a)	*(b)	(c)	(d)
10,400 lin. ft. 8-in., 0-6 ft. deep	$0.47	$0.33	$0.43	$0.48
39,600 lin. ft. 8-in., 6-8 ft. deep	.59	.45	.47	.55
6,600 lin. ft. 8-in., 8-10 ft. deep	.73	.70	.70	.77
1,400 lin. ft. 8-in., 10-12 ft. deep	.92	.96	1.00	1.07
800 lin. ft. 8-in., 12-14 ft. deep	1.17	1.18	1.25	1.46
100 lin. ft. 8-in., 14-16 ft. deep	1.47	1.46	2.00	1.84
1,000 lin. ft. 10-in., 0-6 ft. deep	.59	.40	.50	.57
2,700 lin. ft. 10-in., 6-8 ft. deep	.71	.60	.60	.65
1,900 lin. ft. 10-in., 8-10 ft. deep	.86	.90	.80	.92
1,300 lin. ft. 10-in., 10-12 ft. deep	1.06	1.19	1.05	1.36
3,900 lin. ft. 10-in., 12-14 ft. deep	1.32	1.35	1.30	1.70
800 lin. ft. 10-in., 14-16 ft. deep	1.64	2.04	2.00	2.00
100 lin. ft. 12-in., 0-6 ft. deep	.71	.58	.60	.66
100 lin. ft. 12-in., 6-8 ft. deep	.84	.77	.75	.75
100 lin. ft. 12-in., 8-10 ft. deep	1.01	1.03	1.00	1.05
100 lin. ft. 12-in., 10-12 ft. deep	1.22	1.28	1.50	1.42
200 lin. ft. 12-in., 12-14 ft. deep	1.50	1.57	2.00	1.87
100 lin. ft. 15-in., 0-6 ft. deep	.94	.77	.80	.92
100 lin. ft. 15-in., 6-8 ft. deep	1.07	.96	1.00	1.02
100 lin. ft. 15-in., 8-10 ft. deep	1.25	1.22	1.30	1.33
100 lin. ft. 15-in., 10-12 ft. deep	1.49	1.43	1.60	1.76
200 lin. ft. 15-in., 12-14 ft. deep	1.79	1.77	2.00	2.21
1,500 lin. ft. 15-in., 14-16 ft. deep	2.15	1.87	2.30	2.58
300 lin. ft. 15-in., 16-18 ft. deep	2.59	2.32	2.80	2.75
Y-branches:				
2,300 5-in., on 8-in. pipe	.60	.32	.30	.48
500 5-in., on 10-in. pipe	.71	.42	.40	.70
8 5-in., on 12-in. pipe	.82	.50	.50	.90
80 5-in., on 15-in. pipe	.98	.64	.75	1.53
700 5-in. ⅛-bends	.36	.10	.20	.29
200 5-in. V-branches with caps	.61	.25	.50	.48
500 lin. ft. 5-in. vitr. pipe risers	.76	.72	.70	.43
9,000 lin. ft. 5-in. vitr. house connections	.46	.55	.40	.39
1,600 lin. ft. laying 6-in. c.-i. force main	.32	.30	.35	.42
3,000 lin. ft. ½-in. galv.-iron pipe line	.25	.20	.30	.12
25 tons c.-i. bell and spigot pipe	23.00	22.00	23.00	22.00
2 tons c.-i. specials	55.00	60.00	56.00	60.00
160 manholes	40.00	40.00	40.00	42.00
70 flush tanks	70.00	75.00	75.00	80.00
Sewage pumping station, Bound Brook Rd., near Schwartz Pl. (lump sum)	1,850.00	1,900.00	2,000.00	900.00
Sewage pumping station, Washington Ave. and 6th St. (lump sum)	3,085.00	1,500.00	2,500.00	1,400.00
Machinery in pumping station, Bound Brook Rd., near Schwartz Pl. (lump sum)	4,045.00	2,600.00	2,600.00	1,600.00
Machinery in pumping station, Washington Ave. and 6th St. (lump sum)	2,960.00	3,700.00	3,800.00	3,700.00
1 M ft. lumber for foundations	45.00	35.00	75.00	45.00
100 lin. ft. piles	.50	1.00	.75	.60
1 M ft. sheathing left in place	35.00	35.00	40.00	38.00
700 cu. yds. excav. and embankment	1.00	1.00	1.50	.50
200 cu. yds. extra earth excav	.60	1.00	1.50	.75
200 cu. yds. rock excav	3.00	2.00	2.00	2.00
200 cu. yds. earth fill	1.00	.60	.60	.25
100 cu. yds. stone or gravel fill	2.00	1.50	2.00	2.25
100 cu. yds. additional concrete	9.00	6.50	8.00	7.00
1,000 lbs. additional steel reinforcement	.04	.03	.04	.04
13,000 sq. yds. resurfacing macadam	.30	.40	.25	.18

New York, N. Y.—Bids were opened Dec. 23 at the office of President of Bronx Boro. for sewers as follows:

Sewer in E. 149th (Bungay) St., E. 144th (St. Joseph) St. Lowest bidder, Peter S. Stanton, 2327 Walton Ave., as follows: 991 lin. ft. concrete sewer, 7 ft. 6 in. x 6 ft. 9½ in., $30; 220 lin. ft. concrete sewer, 3 ft. 9 in. x 4 ft. 9½ in., $20; 50 lin. ft. vitr. pipe drain, 12 to 24 in., 50 cts.; 176 spurs for house connections, $1; 180 lin. ft. risers, $1; 6 manholes, each $75; 1 manhole rebuilt, $60; 5 cu. yds. concrete, Class "A," $6; 1125 cu. yds. concrete, Class "B," $6; 21,000 lbs. steel reinforcement bars, 5 cts.; 30 M ft. timber, $20; 5 M ft. timber sheeting, $20; 9000 lin. ft. piles, 20 cts.; total $45,891.

Sewers in Watson Ave. and Beach Ave. Lowest bid, F. V. Smith, Westchester Creek and Trumbull Ave., $23,405.

Sewers on west side of Aqueduct Ave. (University Ave.), between W. 176th and W. 174th Sts. Lowest bid, Jas. Buckley, 3377 Sedgwick Ave., at $16,749.

Westchester Ave. between Metcalf and Taylor Ave., Westchester Ave. between Metcalf and St. Lawrence Ave., Westchester Ave. between Taylor Ave. and Theriot Ave., Beach Ave. between Westchester Ave. and Randolph Ave. Lowest bidder, F. S. Smith, Westchester Creek and Trumbull Ave.: 243 lin. ft. concrete sewer, 40 x 53 in., $11; 540 lin. ft., 38 x 50 in., $10; 275 lin. ft., 29 x 40 in., $7; 523 lin. ft. vitr. pipe sewer, 30 in., $7.50; 540 lin. ft., 24 in., $6; 550 lin. ft., 18 in., $4; 286 lin. ft., 15 in., $3.50; 1456 lin. ft., 12 in., $3.25; 280 lin. ft. basin connections, $2; 270 spurs for house connections, each $1.50; 43 manholes, each $50; 19 receiving basins, each $150; 600 cu. yds. rock excav., $2; 950 cu. yds. concrete, Class "A," $5; 100 cu. yds., Class "B," $5; 240 cu. yds. concrete, Class "C," $5; 100 cu. yds. stone ballast, $1; 39,000 lbs. steel reinforcement bars, .01½ cts.; 24 M ft. timber, $30; 120 M ft. timber sheeting, $30; 40,000 lin. ft. piles, 35 cts.; total $57,713. Other bids: Amama & Sullivan, 24 E. 198th St., Bronx, $59,848; Wm. A. Mitchell, $62,730; Marrone Constr. Co., Westchester, $63,769.

Newark, N. J.—Four lowest bids opened Dec. 23 by Passaic Valley Sewer Comrs. for Sect. 17, central portion of main intercepting sewer, as follows: N. Y. & N. J. Constr. Co., Newark, at $179,531; Litchfield Constr. Co., Brooklyn, N. Y., $181,334; Harrison & Craig Co., Newark, $199,364, and Merrill-Ruckgaber Co., New York, $201,184.

Middletown, Del.—Pugh & Hubbard, Witherspoon Bldg., Philadelphia, Pa., have been engaged to prepare plans for sewer system and sewage disposal plant and for the paving of streets.

Laurel, Md.—See "Water Works."

Ocean City, Md.—Plans have been prepared by Pugh & Hubbard, Witherspoon Bldg., Philadelphia, Pa., for sewer system and disposal plant. Work to start in the spring.

Parkersburg, W. Va.—A resolution has been introduced in City Council providing for a bond issue of $200,000, the proceeds to be used in further construction of streets, sewers, etc.

Columbus, Ga.—Mayor John C. Cook, in his annual message, recommends construction of a complete system of sewers.

Gadsden, Ala.—City Council is reported to have decided to issue $30,000 bonds for the construction of sewers in West Gadsden.

Bowling Green, Ky.—Eugene Fies, Pres. of Southern Asphalt & Constr. Co., Birmingham, Ala., is reported to have made City Council a proposition under which the entire sewerage system for this city can be constructed.

Dayton, O.—City Commission considering the issue of $40,300 bonds for storm sewers in Berm, Grafton, Norman and Wyoming Sts. and Burton Ave.

Elyria, O.—Bids desired until Jan. 7 by Director Pub. Service for furnishing material and reconstructing sewer in Elyria Ave.; also constructing a sanitary sewer in E. 25th St.

Hamilton, O.—City Council is reported to be considering sewer improvements; $75,000 to be spent on the storm sewer system and $40,000 on the sanitary sewer system of East Hamilton.

Oakwood, O.—Bids desired until Jan. 23 by Village Clerk for $21,000 sanitary sewer bonds.

Lockport, Ill.—Bids desired until Jan. 7 by Bd. Local Improvements, for constructing sewer system. Estimated cost, $70,000. A. S. Calkins, Asst. City Engr.

Bettendorf, Ia.—A. M. Compton, City Engr., reported to have completed plans for west end sewer system, which he estimates at $20,598.

Lenox, Ia.—Theo. S. DeLay, Creston, is preparing plans for a sewer system for Lenox, to be constructed during the season of 1915.

Duluth, Minn.—A sanitary sewer system for New Duluth, to cost $153,000, has been approved by City Council. The first section, to cost $35,000, will be constructed this winter. John Wilson, City Engr.

Hibbing, Minn.—Village Council reported to have approved plans for a sewer system for Alice; cost about $50,000.

Newark, N. J.—Following are bids opened Dec. 22 by Passaic Valley Sewerage Comrs. for constructing main intercepting sewer, Sect. 14, open trench and tunnel: (a) Cenedella & Co., Milford, Mass., $160,741; (b) Chas. A. Haskin, Boston, Mass., $168,983; (c) Bruno & Petitti, Belleville, $176,080; (d) Merrill Ruckgaber Co., New York, N. Y., $179,390; Oscar Daniels Co., New York, N. Y., $196,520; T. A. Gillespie Co., New York, N. Y., $199,813; H. K. Corbin Co., Inc., New York, N. Y., $210,348; Cauldweil Wingate Co., New York, N. Y., $246,470.

Unit prices of four lowest bidders, a, b, c and d:

	(a)	(b)	(c)	(d)
2,566 lin. ft. earth excav. and refill., in trench, for 90-in. concrete sewer	$25.00	$27.00	$30.00	$35.00
680 lin. ft. excav. in earth, rock, or earth and rock together, and refill., in tunnel, for 90-in. concrete sewer	48.00	60.00	60.00	53.50
100 cu. yds. rock excav., in trench	.01	.01	4.00	5.00
3,800 cu. yds. concrete masonry, with Portland cement mortar, in trench	8.50	8.00	8.00	8.00
1,200 cu. yds. concrete masonry, with Portland cement mortar, in tunnel	11.00	10.00	10.00	9.00
100 cu. yds. brick masonry and appurtenant work, in manholes, with Portland cement mortar	22.00	20.00	20.00	15.00
100,000 lbs. steel for concrete reinforcement	.04	.04	.03	.03
3,500 long tons riprap	3.50	3.00	3.00	2.00

Sandstone, Minn.—Bids desired until Jan. 18 by Village Recorder for constructing sewer system, consisting of 8605 ft. 6, 8 and 10 pipe and 34 manholes.

Springfield, Mo.—S. Fisher, City Engr., is reported to be completing plans for a sewer for 8th Ward; cost about $30,000.

Benton, Ark.—See "Water Works."

Cleburne, Tex.—Burns & McDonnell, of Kansas City, reported to be preparing specifications for a sewer system.

Wilburton, Okla.—See "Water Works."

Aberdeen, Wash.—City Council has instructed City Engineer to prepare plans for trunk sewers on Sumner, Jefferies, Martin, Duffy and other streets; cost $40,000.

★**Seattle, Wash.** — Contract reported awarded by Bd. Pub. Wks. for sewer in Eli Ave. to L. Colluccio, 1642 Lane St., at $20,879. (Bids opened Dec. 11.)

Portland, Ore.—Council considering repair of E. Adler St. trunk sewer, between E. 2d St. and Willamette River; cost $20,000.

City Council reported to have approved plans for sewer in 47th St. S. E. and 26th Ave. S. E.; also for sewers in 48th and 49th Sts. S. E.

Richmond, Cal.—H. D. Chapman, City Engr., writes that no bids have yet been asked for the proposed sewer for Canal Dist. Plans are still under consideration.

Stockton, Cal.—G. E. Grunsky, of San Francisco, reported to be completing plans for a sewer system to be ready for approval about Jan. 10.

BRIDGES.

Items Arranged Geographically

★**Concord, N. H.**—Contract awarded Dec. 15 for constructing Pembroke Bridge across Merrimack River at Concord to consist of 4 steel spans, one 77 ft. 11 in., one 82 ft. 6 in. and two 149 ft. 3 in., concrete floor in roadway and a 5-ft. walk with plank floor, to Berlin Constr. Co., Berlin, Conn., at $23,993.

Wallkill, N. Y.—Concrete Steel Eng. Co., Park Row Bldg., New York, has been engaged to prepare plans for concrete steel bridge at Wallkill; it will be 350 ft. long, 30 ft. wide, have 3 spans, and cost about $25,000.

Trenton, N. J.—See "Railroads."

Covington, Va.—Bids desired until Jan. 4 at County Clerk's office, Covington, for constructing steel bridge 100 ft. long over Dunlap's Creek.

Gate City, Va.—Bids desired until Jan. 5 at office of County Clerk for constructing steel bridge 87 ft. long over Big Mocassin Creek.

Glen Allen, Va.—Bids desired until Jan. 4 at County Clerk's office, Richmond, for constructing reinforced concrete bridge over Chickahominy River between Henrico and Hanover Counties, near Glen Allen. It will have 3 spans 31½ ft. each, 12-ft. roadway. The Childrey Co., Engrs., Richmond.

Lake Charles, La.—Bids reported desired until Jan. 5 for constructing 66 reinforced concrete bridges and culverts. Address E. C. House, Secy. of Jury.

Hamilton, O.—Surveys are being made by Fred Hammerle, County Engineer, for constructing bridge over Great Miami River at Wood St.; cost about $90,000.

Covington, Ind.—Bids desired until Jan. 7 by County Commissioners, Covington, for constructing bridge over Wabash River at Covington. Steel superstructure with concrete abutments and piers. Estimated cost $40,000. J. G. B. Short, Co. Engr.

La Salle, Ill.—County Bd. at Ottawa is considering building bridge over Illinois River at La Salle; cost about $70,000.

Hill City, Minn.—Bids reported desired until Jan. 6 by County Auditor for constructing bridge with concrete floor over Willow River.

Anthony, Kan.—Bids reported desired until Jan. 11 by County Commissioners for constructing 11 concrete bridges from 20 to 300 ft. in length.

Topeka, Kan.—Plans being prepared by A. R. Young, City Engineer, for a reinforced concrete bridge 100 ft. long and 30 ft. wide, to be constructed over Shunganunga Creek at Kansas Ave.

Turner, Kan.—F. Holcomb, Co. Clk., Kansas City, writes it is proposed to construct concrete piling and approach to bridge at Turner, at cost about $9,322.

Later reports state that bids will be received by County Comrs. at Kansas City, Kan., until Jan. 4 for constructing above bridge at Turner.

Yates Center, Kan.—Bids desired until Jan. 4 by County Clerk for constructing 2 steel I-beam bridges with concrete substructures and reinforced concrete floors, one in Eminence Township and other in Owl Creek Township.

Kearney, Neb.—Bids reported desired until Jan. 25 by City Clerk, for constructing steel arch bridge, 46 ft. span.

York, Neb.—Bids reported desired until Jan. 12 by County Clerk for bridge construction in 1915, in all about 15 bridges, to include 2 12-ft. spans, 3 16-ft. spans, 4 50-ft. spans, 1 32-ft. span, 1 65-ft. span, 1 60-ft. span and 3 70-ft. spans.

Smithville, Tex.—About $50,000 bonds have been sold by Citizens Com. for constructing wagon bridge over Colorado River.

★**Oklahoma City, Okla.**—Contract awarded to Oregonia Bridge Co., Oklahoma City, by County Comrs., for constructing 2 steel bridges, at cost of total $5,200.

Seattle, Wash.—Plans for approaches to 15th Ave. N. W. Bridge at Ballard to be constructed at cost of about $479,500 have been approved by Bd. Public Works.

★**Spokane, Wash.**—Contract for constructing bridge from Sprague Ave. and Hilliard St. over Northern Pacific freight house to Division St. and Riverside awarded to R. T. Lawrence, Spokane, at about $20,000.

★**Portland, Ore.**—Contract awarded by Maj. Jay J. Morrow, Couch Bldg., for furnishing material and erecting 8 steel bridges of swing draw type to Cowlitz Bridge Co., Yeon Bldg., Portland, at $15,863.

Bakersfield, Cal.—See "Paving and Roads."

Ottawa, Ont.—This city has in contemplation construction of 2 steel viaducts, one at Lyon St. and the other at Fairmont Ave.

★**St. Catharines, Ont.**—City Council is reported to have awarded contract for constructing St. Paul High Level Bridge over old Welland Canal to Canadian Bridge Co., Walkerville, at $91,000.

PAVING AND ROADS.

Items Arranged Geographically

Buffalo, N. Y.—Aldermanic Street Com. voted to repave Breckenridge St. and Lafayette Ave.

Bids desired until Jan. 7 by Dept. Pub. Wks. for paving Condon and Roesch Aves., repaving Kensington Ave., Clinton, Barker and Northampton Sts.

East Aurora, N. Y.—Citizens voted $13,000 bonds for paving E. Main St.

Port Dickinson, N. Y.—Press reports state bids desired by Bd. Village Trustees until Jan. 5 for $39,000 paving bonds.

Bridgeton, N. J.—Commission reported to be considering building a road into Elmer Park.

Chesterfield, N. J.—Bids desired by Township Com. of Chesterfield Township on Jan. 16, 2:30 p. m. and opened immediately thereafter at Stead's Hotel, Crosswicks, for constructing water bound broken stone road with bituminous dressing from end of present stone road, Village of Chesterfield, to township line between townships of Chesterfield and North Hanover, a distance of 11,575 ft. Jas. Logan, Engr., 11 Main St., Mt. Holly.

Maryland.—Bids desired until Jan. 5 by State Roads Comn., Baltimore, for constructing State highways as follows:

Contr. A-11, Allegany Co., about 1.74 miles resurfacing along National Pike.

Contr. CE-17, Cecil Co., about .55 mile macadam or concrete road through town of Northeast.

Contr. CH-6, Charles Co., about 1.97 miles 4-in. gravel surfacing from Bel Alton to Lothair.

Contr. CH-11, Charles Co., about 5.23 miles 4-in. gravel surfacing on road from La Plata to near Ripley.

Contr. F-22, Frederick Co., about 1.40 miles macadam road along Gettysburg Rd.

Middletown, Del.—See "Sewerage and Sewage Disposal."

Washington, D. C.—Daniel E. Garges, Ch. Clk. Comrs., D. C., writes that no appropriation has been made as yet for paving Upper 7th St. If made, it will not be available until July 1, 1915.

★**Quitman, Ga.**—C. A. Collacot, Chattanooga, Tenn., secured $35,000 paving contract in Quitman.

Brooksville, Fla.—Bids desired until Jan. 9 by County Commissioners for $300,000 funding and highway bonds.

Tampa, Fla.—Bd. County Comrs. have sold $500,000 road improvement bonds.

Contract about to be let by Bd. Pub. Wks. for about 65,000 sq. yds. pavements.

West Palm Beach, Fla.—Bids reported desired until Jan. 5 by President of City Council for constructing approximately 40,000 sq. yds. macadam pavement and 20,000 sq. yds. rock surfacing. J. B. McCrary Co., Engrs., Atlanta, Ga.

Meridian, Miss.—Bids reported desired until Jan. 6 by County Bd. Superv. for $50,000 bonds for building good roads.

Chattanooga, Tenn.—County Bd. Road Comrs. authorized plans and specifications be prepared for about $50,000 worth of road work.

Johnson City, Tenn.—Citizens voted Dec. 12 to issue $300,000 bonds for road improvements. M. B. Martin, Deputy County Court Clk.

Louisville, Ky.—Bids desired until Jan. 11 by Bd. Pub. Wks. for reconstructing with vitr. block gutters, granite block stringers and bituminous concrete pavement Hill St. Approximate cost $8,600.

Mt. Gilead, O.—Bids reported desired until Jan. 13 by County Commissioners for constructing a macadamized road in North Bloomfield Township and Sandusky Township.

Strongsville, O.—Citizens voted $50,000 bonds for road improvements.

Troy, O.—Bids desired until Jan. 7 by Directors Pub. Service for improving Walnut St. by grading, constructing cement curb and gutter and paving with bituminous macadam, about 5193 sq. yds. M. A. Gantz, City Engr.

Youngstown, O.—Bids reported desired until Jan. 4 for grading and paving a number of streets. Address Clerk Bd. Pub. Service.

★**Ft. Wayne, Ind.**—Contract for constructing Yellow River Rd. No. 2, 18,828 ft., awarded by Bd. County Comrs. to Wilson & Nail, Marion, at $21,389.

Indiana—Bids desired by County Commissioners for constructing roads as follows:

Until Jan. 5:

Greensburg, grading, paving and improving roads in Saltcreek and Marion Townships.

Until Jan. 6:

Indianapolis, gravel and macadam roads.

Until Jan. 12:

Plymouth, grading, draining and paving with gravel 11 roads.

Cadillac, Mich.—O. E. Carr, City Mgr., writes with regard to proposed drive around Cadillac that nothing definite has yet been done; it will probably be constructed by city, a portion at a time.

Moline, Ill.—City Council considering paving with brick asphalt fill 4th St. Dist., 9610 sq. yds., and 1st St. 2780 sq. yds.

Rock Island, Ill.—Bd. Public Improvements voted to pave with brick 21st St.; cost about $15,000.

New London, Wis.—City will spend $30,000 for street improvements.

Hardin, Mont.—Plans have been completed for paving streets in Dist. No. 2; cost about $40,000.

Potosi, Mo.—W. R. Heagler, of Potosi, has been retained to make surveys and plans for the Potosi Special Road Dist.

De Vall Bluff, Ark. — About $60,000 Prairie County Road Improv. Dist. No. 1 bonds have been sold.

Bay City, Tex.—Bids desired until Jan. 11 by County Judge for $30,000 bonds of Road Dist. No. 1.

Celina, Tex.—County Comrs. Court at McKinney sold $125,000 bonds for road improvements.

El Paso, Tex.—About $53,450 is to be spent for paving with brick pavements by city.

Floresville, Tex.—W. Q. McCracken, Co. Clk., writes citizens voted Dec. 15 to issue $48,000 bonds for road improvements. Bonds will not be issued until spring.

Texas.—Bids desired at the offices of the County Judges at San Antonio, Bexar County; Comal, New Braunfels County; Seguin, Guadalupe County; San Marcus, Hays County, and Autin, Travis County, until Jan. 22, for improving by grading, surfacing with gravel, and constructing necessary drainage structures, portions of Texas Post Road lying within their respective counties. This road extends from San Antonio to Austin, Texas, via Selma, New Braunfels, Hunter, San Marcus, Kyle and Buda, approximately 71 miles; $229,000 in cash is available for this work, and cash payments amounting to 85 per cent of the engineer's estimate will be made monthly. Complete plans and specifications may be seen at the offices of the U. S. Highway Engineer in the Court Houses of Bexar, Comal and Hays Counties and at 107 W. 6th St., Austin, Tex.

Wharton, Tex.—About $275,000 bonds for constructing roads in Dist. No. 1, Wharton County, have been sold.

Davenport, Wash.—About $46,000 is to be spent by county for road work in spring.

Dayton, Wash.—Columbia County has appropriated $333,729 for maintenance and construction of permanent highways during 1915.

Montesano, Wash.—About $335,000 will be spent by County Comrs. in spring for constructing highways.

North Yakima, Wash.—Comrs. Yakima County have voted to macadamize 2 miles Naches Valley Highway and gravel 4 miles Toppenish-Wapato Rd.

Plans prepared by City Engineer for paving 1st Ave.; cost about $15,000.

Prosser, Wash.—County Comrs. are reported to have postponed indefinitely proposition to construct Kennewick-Finley Rd. Bids opened Dec. 8.

Seattle, Wash.—About $1,000,000 King County Road bonds have been sold by Bd. County Comrs.

Spokane, Wash.—County Comrs. voted to complete highway to Deer Park; cost about $150,000.

★**Bandon, Ore.**—Contract for improving and constructing concrete sidewalks on Oregon Ave. has been awarded to W. H. Webb, Bandon, at $11,900.

Falls City, Ore.—About $50,000 is to be spent for constructing road between Falls City and Sieltz County line.

★**Roseburg, Ore.**—Contract for constructing 2 miles roadway near Canyonville awarded by County Court to H. J. Hildeburn, Roseburg, at $9,976.

Bakersfield, Cal.—Bids desired until Jan. 9 by County Bd. Supervisors, Bakersfield, for grading, paving, constructing culverts, etc., on Div. 7, Sect. 1, Bakersfield-Taft Rd., 7½ miles in length; also constructing pile bridges, culverts, reinforced concrete headwalls and guard rails on Div. 5, Sect. 1, Bakersfield-McKittrick Rd., 7 miles in length.

★**California.** — Contracts have been awarded as follows by State Highway Comn., Forum Bldg., Sacramento, for constructing sections of state highway. Bids opened Dec. 14. Unit prices in Engineering Record of Dec. 26:

★Orange County, Div. 7, Route 2, Sect. A, to M. R. Co., Inc., 826 San Fernando Bldg., Los Angeles, at $35,831.

★Siskiyou County, Div. 2, Route 3, Sect. C, to E. T. Johnson, Room 305, Commercial Bldg., Portland, Ore., at $90,522.

★Los Angeles County, Div. 7, Route 4, Sect. C, to Lee Moor Contr. Co., Los Angeles, at $281,646, to be completed in 150 days.

★Colusa County, Div. 3, Route 15, Sect. A (bids opened Nov. 9), has been awarded to C. W. Cross, 2723 12th Ave., Oakland, at $55,062. Unit prices on this section in Engineering Record of Nov. 21.

★**Los Angeles, Cal.**—Contract for 80,612 sq. ft. asphalt pavement on 23d St. awarded to Geo. R. Curtis, at $14,122.

★**Ontario, Cal.**—B. B. Mann, City Engr., writes that contract was awarded Dec. 21 to Highway Constr. Co., San Bernardino, for paving as follows on bid opened Dec. 14: 350,000 sq. ft. concrete base 4-in. asphaltic oil and sand wearing surface ⅜ in., including grading, 10½ cts.; 150,600 sq. ft. macadam 4¾ in. thick, including grading, 7.7 cts.; 55,576 sq. ft. concrete gutters 5 in. thick, mixture 1:2:4 10½ cts.; total, including resurfacing old macadam, cobblestone walk, curb, cementing old cobblestone gutter, $58,138. Next 3 lowest bids: T. E. Schafer, 222 W. 33d St., Los Angeles, $62,958; J. Montgomery Co., Alhambra, Cal., $64,419; H. E. Cox, Pasadena, Cal., $65,367.

Sacramento, Cal. — State Highway Comrs. have adopted plans for constructing 14-mile highway in Los Angeles County, part of Tejon route to Bakersfield.

San Diego, Cal.—About $408,000 bonds have been sold by City Council for improvements of Park highways.

San Francisco, Cal.—Works Bd. is in favor of paving San Bruno Ave.; cost about $21,000.

★Contract for paving with asphalt Sloat Boule. awarded to Blanchard & Brown at $58,400.

Bonners Ferry, Idaho.—Bids desired until Jan. 13 by County Commissioners for constructing Road 48 in Road Dist. 28.

Sandpoint, Idaho.—City Council voted to pave downtown business streets; cost about $80,000.

★Items marked thus give the names of parties awarded contracts.

Wallace, Idaho.—Election will soon be held to vote on bonds for paving 20 streets.

Ottawa, Ont.—The paving for 1915 includes 3 sections of Booth St., the first from Queen St. to Ottawa River, with asphalt 5000 yds., stone blocks 3400 yds., gutter 3000 lin. ft., headers, 300 lin. ft., cost $35,000; Somerset to Queen St., with asphalt 9500 yds., gutter 4500 lin. ft., water table 2650 sq. ft., headers 350 lin. ft., cost $32,000, and from Carling to Somerset St., asphalt 17,000 yds., curb and gutter 3200 lin. ft., gutter 4700 lin. ft., headers 500 lin. ft., cost $57,000, and Preston St., Wellington to Carling St., asphalt 16,000 sq. yds., stone blocks 11,000 yds., curb and gutter 1600 lin. ft., gutter 8600 lin. ft., water table 12,400 sq. ft., headers 960 lin. ft., cost $150,000.

Saanich, B. C.—City Comrs. voted to pave Shelbourne St., cost about $30,000; also Lake Rd., from Carey Rd. to Agnes St., and subway constructed under V. & S. Ry. tracks, and concrete culvert at Swan Lake, cost about $50,000.

STREET CLEANING AND GARBAGE DISPOSAL.

Items Arranged Geographically

Long Island City, L. I., N. Y.—No contract was let on bids asked until Dec. 22 by Borough President for general construction of the destructor plant at Flushing and Metropolitan Aves., Ridgewood, Boro. Queens. Security $30,000. Letting indefinitely postponed.

★**Aspinwall, Pa.**—Contract was awarded Dec. 21 by Boro. Council for collection, removal and disposal of garbage, etc., for a term of 5 years, beginning Feb. 1, 1915, to Walker, Stratman Co., Pittsburgh, at $12,425.

Columbus, Ga.—Mayor John C. Cook, in his annual message, recommends construction of a garbage disposal plant.

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Items Arranged Geographically

Pier—New Bedford, Mass.—Following is the unit prices of each lowest bid opened by Bd. Harbor and Land Comrs., State House, Boston, on the different classes of construction of the proposed state pier at New Bedford. The first is for steel and concrete shed on a solid fill pier, and the second for same shed on a pier which was partly solid fill and partly on concrete piers (latter is alternate bid).

Steel and concrete shed on a solid fill pier—lowest bidder, John R. Burke, Boston, as follows:

60,000 cu. yds. dredg. and excav.	$0.25
100 cu. yds. excav. boulders, 1 to 5 tons	7.50
100 cu. yds. excav. boulders, over 5 tons	5.00
75,000 cu. yds. fill	.49
10,000 lin. ft. oak fender piles	.50
14,000 lin. ft. y. p. or oak piles (in curtain)	.42
91,500 lin. ft. spruce piles	.32
230 M ft. creosoted sheet piling	65.00
160 M ft. y. p. timber (caps, wales and stringers)	50.00
150 M ft. spruce or y. p. (in deck)	45.00
10 M ft. coated y. p. guard timbers	55.00
40,000 lbs. reinforcing steel (foundations)	.025
6,000 cu. yds. concrete in curtain walls	8.00
1,565 lin. ft. concrete chocks	2.50
2,275 cu. yds. concrete and granite wall	7.50
34,000 lbs. c.-i. moorings, anchor posts, etc.	.04
450 cu. yds. concrete in foundations	7.50
50,000 lbs. tie rods and turnbuckles	.035
Moving immigration shed (lump sum)	650.00
900 lin. ft. laying railroad tracks, etc.	3.25
Extension of sewer (lump sum)	210.00
2,000,000 lbs. structural steel	.025
1,027 cu. yds. reinf. concrete in slabs—1st floor	16.00
833 cu. yds. reinf. concrete in slabs—2d floor	16.00
21,500 sq. ft. reinf. concrete outside walls and part	.26
102 sliding doors—1st floor	60.00
18 pr. swinging doors—2d floor	115.00
6 panelled doors	8.00
4 fire doors—2d floor partitions	50.00
4,360 sq. ft. steel sash	.58
328.5 "Squares" of 100 sq. ft. reinforced concrete roof	30.00
2 flags and flagpoles (lump sum)	150.00
11,000 lbs. metal stairways	.05
9,000 sq. yds. granite paving on concrete base	3.25
9,000 sq. yds. vitr. shale paving block on concrete base	3.50
9,000 sq. yds. creosoted wood block on concrete base	3.50

Alternate plan, partly solid fill and partly on concrete piers—lowest bidder, W. H. Ellis & Sons Co., Boston, as follows:

60,000 cu. yds. dredg. and excav.	$0.34
100 cu. yds. excav. boulders, 1 to 5 tons	11.50
100 cu. yds. excav. boulders, over 5 tons	26.00
25,000 cu. yds. filling	.80
10,000 lin. ft. oak fender piles	.41
8,050 lin. ft. y. p. or oak piles (in curtain)	.21
46,500 lin. ft. spruce piles	.23
130 M ft. creosoted sheet piling	63.00
95 M ft. y. p. timber (caps, wales and stringers)	46.00
85 M ft. spruce or y. p. (in deck)	43.00
10 M ft. coated y. p. guard timbers	50.00
22,000 lbs. reinforcing steel (in foundations)	.02⅝
3,700 cu. yds. concrete in curtain walls	5.90
800 lin. ft. concrete chocks	.98
1,250 cu. yds. concrete and granite wall	9.00
34,000 lbs. c.-i. moorings, anchor posts, etc.	.03
300 cu. yds. concrete in foundations	6.50
50,000 lbs. tie rods and turnbuckles	.05
Moving immigration shed (lump sum)	3,800.00
Extension of sewer (lump sum)	950.00
2,380,000 lbs. structural steel	.025
1,027 cu. yds. reinf. concrete in slabs—1st floor	11.80
833 cu. yds. reinf. concrete in slabs—2d floor	11.80
21,500 sq. ft. reinf. concrete outside walls and part	.30
102 sliding doors—1st floor	68.00
18 pr. swinging doors—2d floor	125.00
6 panelled doors	20.00
4 fire doors—2d floor partitions	65.00
4,360 sq. ft. steel sash	.54
2 flags and flagpoles (lump sum)	125.00
11,000 lbs. metal stairway	.09
5,300 sq. yds. granite paving on concrete base	3.50
23,000 lin. ft. y. p. and short length spruce piles	.21
3,900 cu. yds. concrete (in foundation piers)	7.50
2,500 lbs. anchor bolts and frames	.04
Riprap around concrete piers	1.50
6,210 lin. ft. oak spur shores	.40
15.6 M ft. y. p. timber (wales and chocks)	62.00
2,040 cu. yds. reinf. conc. (driveway and pier deck)	12.50
900 lin. ft. laying railroad tracks, etc.	3.10
2,700 sq. yds. granite block paving (driveway and outer end of pier)	3.50
328.5 "Squares" of 100 sq. ft. plank roof, etc.	20.00
5,300 sq. yds. vitr. shale paving block (on concrete base)	2.94
5,300 sq. yds. creosoted wood block (on concrete base)	3.50
312 cu. yds. granite masonry (in concrete piers)	15.00

Wharf—Boston, Mass.—The Directors of the port of Boston have decided not to build wharf for which bids were received in June. It was expected at the time that this would be used by the Cunard Co.

Dredging — New Haven, Conn.—Bids were opened at the office of U. S. Engineer, New London, Dec. 16 for dredging in New Haven Harbor as follows: 700,000 cu. yds.: (a) per cu. yd., (b) total: Atlantic, Gulf & Pacific Co., Park Row Bldg., New York, (a) 8.14 cts., (b) $56,980; Wm. Beard & Co., 21 State St., New York, (a) 11.25 cts., (b) $78,750; R. G. Packard Co., foot E. 28th St., Bayonne, N. J., (a) 9.8 cts., (b) $68,600; Timothy J. Dady, 350 Fulton St., Brooklyn, N. Y., (a) 15.5 cts., (b) $108,500; Taylor Dredging Co., foot Communipaw Ave., Jersey City, (a) 7.8 cts., (b) $54,600; Metropolitan Dredging Co., 90 West St., New York, (a) 7.44 cts., (b) $52,080; hydraulic dredge, evidence of authority of president to sign proposal not furnished: American Dredging Co., Philadelphia, Pa., (a) 8.9 cts., (b) $62,300; Coastwise Dredging Co., Norfolk, Va., (a) 7.79 cts., (b) $54,530; Baystate Dredging Co., Ltd., 247 Atlantic Ave., Boston, Mass., (a) 10 cts., (b) $70,000; Eastern Dredging Co., 172 Condor St., East Boston, (a) 11 5-6 cts., (b) $82,833; Maritime Dredging Co., 80 Broad St., New York, (a) 11 cts., (b) $77,000; Morris & Cumings Dredging Co., 17 State St., New York, (a) 7.44 cts., (b) $52,080; John A. Seely, 30 Church St., New York, (a) 9 cts., (b) $63,000; P. Sanford Ross, Inc., Jersey City, N. J., (a) 8.95 cts., (b) $62,650; Furst-Clark Constr. Co., Baltimore, Md., (a) 10.75 cts., (b) $75,250; John H. Gerrish, 101 Tremont St., Boston, (a) 9.2 cts., (b) $64,400.

State Canal Work—Albany, N. Y.—Bids were opened Dec. 22 by State Supt. Pub. Wks., for Contract C-2, removal of buildings, etc., Seneca Falls. Ten bids were received, of which the most favorable was that of the Levenson Wrecking Co., of Hoboken, N. J.; this company offered to do all work necessary, and in addition pay to State the sum of $2,675, for material to be removed.

Lock Gates, Etc.—Wheeling W. Va.—Bids desired until Jan. 30 by Maj. T. H. Jackson, Corps Engrs. U. S. A., Wheeling, for furnishing and erecting steel lock gates, for Dam No. 15, Ohio River, advertised in Engineering Record.

Dredging—Mooresville, N. C.—All bids opened Dec. 26 at office of C. V. Turlington, attorney, Mooresville, for about 217,470 cu. yds. dredging Withrow's Creek, have been rejected, and new bids will be received Jan. 15. L. O. White, Engr., Statesville.

Drainage — Bradentown, Fla. — The County Comrs. reported to have taken preliminary steps for construction of Gamble creek drain in Parrish Dist. A drainage canal, which will reclaim 25,000 acres of land, will be constructed at a cost of about $100,000.

Docks—Sanford, Fla.—We are informed that Clyde Steamship Co. (W. M. Tupper, Supt., Jacksonville) will repair, and not rebuild, its docks at Sanford.

Drainage—Gonzales, La.—Press reports state bids are desired Feb. 4 by the Comrs. of New River Drainage Dist. at Gonzales, for a drainage system, to include about 2,000,000 cu. yds. excav.

Drainage—Alamo, Tenn.—The Comrs. of South Forks Drainage Dist. are reported to have selected Stein & Harbert and S. W. McClesky as engineers for proposed drainage canal; contract for construction will probably be let in spring.

Ditch—Richmond, Ind.—The Viewers of the Nettle Creek drainage ditch project, including Levi Peacock, County Surveyor, have reported in favor of constructing the ditch; it will include removal of 176,571 cu. yds. of earth; total cost about $20,000.

★**Drain—Coldwater, Mich.**—Contract reported awarded for constructing Little Swan Creek drain to Clyde A. Walb, of Lagrange, Ind., for dredging, at $12,750, and for concrete bridges to Cole & Noran, of Coldwater, at $4,600.

River Terminal—Quincy, Ill.—The Joint Terminal Com. (Wm. K. Abbott, Chmn.) is about to prepare tentative plans for river terminals, including docks, sea wall, etc.

Ditch—Owatonna, Minn.—Bids desired until Jan. 11 by Auditors of Steele and Waswca counties in Owatonna, for constructing Judicial Ditch No. 1, consisting of excavation and clean-out work amounting to 42,000 sq. yds. Geo. A. Ralph, Engr., Shubert Bldg., St. Paul.

Irrigation Work — Ft. Shaw, Mont. — Bids were opened Dec. 22 by U. S. Reclamation Service, Great Falls, Mont., for earthwork on Greenfields Distribution System, Greenfields, South Mill Coules Canals. O'Connor & Helean, of Great Falls, was lowest bidder on all 4 schedules; they bid for excav. class 1, 11.85 cts. and 10.45 cts. per cu yd.; excav. class 2, 32 cts.; excav. class 3, 60 cts. and overhaul 2 cts. per cu. yd.; total on all schedules, $43,691. Totals of next 3 lowest bids: J. E. Hilton, Billings, $52,537; McArthur Bros Co., 208 So. La Salle St., Chicago, $58,912; R. B. Fraser, Hotel Stevens, Great Falls, $60,433.

Piers for Steel Pipes—Browning, Mont. —Bids desired until Jan. 20 at office of U. S. Reclamation Service, Browning, for constructing concrete piers for supporting steel pressure pipes at Hall's Coules Crossing of St. Mary's Canal, St. Mary Storage Unit, Milk River Project, Mont. Works involves about 250 cu. yds. concrete and 1000 cu. yds. excavation and backfilling at Blackfeet Indian Reservation, about 35 miles northwest of Browning.

Irrigation Work—Polson, Mont.—Bids were opened Dec. 15 by U. S. Reclamation Service, St. Ignatius, for construction of about 38 miles of canals and laterals, involving the excavation of about 105,000 cu. yds. of material, on east side of Flathead River, about 18 miles southwest of Polson, Mont., and 9 miles west of Ronan, Mont., and the lowest bid was submitted by A. L. Markhus, Polson, as follows: Excav. Class 1, 15 cts. per cu. yr.; class 2, 60 cts.; class 3, 90 cts.; overhaul, 2 cts.; total $16,570. Other bids: Chas. Wilhite & Co., Boise, Idaho, $17,005; Wilson Bros., Polson, $19,447; Temple & Siroky, Heyburn, Idaho, $21,177, and T. H. Lynch, Orland, Cal., $28,300.

Irrigation — Donna, Tex. — The citizens of Hidalgo County at Edinburg are reported to have voted to form an irrigation district, to embrace approximately 40,000 acres in Donna.

Ditch—Edna, Tex.—Bids desired until Jan. 12 by Drainage Comrs. of County Drainage Dist. No. 4, Edna, for constructing canals, drains, ditches and levees, straightening and cleaning water courses and other necessary work in said Drainage dist. The work consists principally of 100 miles of ditches, yardage about 392,343. Area of district about 20,000 acres. S. L. Chalk, Dist. Engr., Box 592, San Antonio.

Hoist—Grand Junction, Colo.—Bids desired until Jan. 6 at U. S. Reclamation Office, Washington, D. C., for furnishing a 44-ton hoist for 60-ft. roller, Grand River Diversion Dam, Grand Valley Project, Colo.

Irrigation—Maxwell, N. M.—The Maxwell Irrigated Land Co., reported to have acquired options on land across river from town, embracing about 15,000 acres of land and a diversion dam will be built across Red River above Hebron, and channel will cut across narrow strip of land to carry Red River waters to the Sugarite.

Irrigation Bonds—Grandview, Wash.—Bids desired until Jan. 12 by Secretary, Grandview Irrigation Dist., for $67,000 bonds, to be used to construct canal, cement wasteways and metal flumes, and reinforce or rebuild diversion dam across Bruneau River.

Canal—Seaside, Ore.—J. E. Oates, of Seaside, writes it is proposed to construct a canal between Seaside and Warrenton, about 6 ft. water, 30 ft. wide, about 500,000 cu. yds. excav.; cost about $100,000. Engineer, F. J. Walsh, of Astoria.

Dyke — Tillamook, Ore. — Bids desired until Jan. 10 by H. F. Goodspeed, Tillamook, for constructing 13,400 lin. ft. dyke on lands bordering on Tillamook Bay.

Irrigation—Anderson, Cal.—H. H. Henderson, engr. of the Anderson-Cottonwood Irrigation Dist., has submitted his report to directors, and estimates cost of constructing the project, which includes all preliminary expenses, costs of rights-of-way and construction, at $350,000.

Irrigation—Chico, Cal.—M. C. Polk, City Engr., reported to have prepared plans for irrigation of 150,000 acres near here, and states the project is feasible. It is proposed to consolidate this scheme with that of Jas. D. Phelan, Phelan Bldg., San Francisco, who is also said to be interested in the construction of a system to irrigate 15,000 acres here.

★**Dredging—Long Beach, Cal.**—Contract reported awarded to the Los Angeles Dredging Co., Los Angeles, for removing 64,400 cu. yds. silt from Long Beach harbor, at $24,000.

River Improvements—Los Angeles, Cal. —Approximately $27,000 is to be expended by the Nuevo Land Co. in improving San Jacinto River, which runs through the Nuevo Rancho, in the Lakeview Perris Hemet Valley Dist.

Irrigation Work—Modesto, Cal.—Bonds in the sum of $530,000 reported sold by Modesto Irrigation Dist. for completion of the irrigation system.

Dock — San Francisco, Cal.—Contract about to be let by the Harbor Board (Leo V. Merle, Secy.) for a new dock for the Pacific Alaska Navigation Co., to be constructed at foot of Harrison St.; it will be built of creosoted wooden piles, with a wooden shed.

Irrigation—Higley, Ariz.—The Queen Creek Power & Water Co. reported formed to irrigate 25,000 acres of land near Higley, including drillings of wells and installation of high power pumps on land to be irrigated. Directors: John Schrock, Wichita, Kan.; C. H. Rittenhouse, Phoenix; Paul B. Beville, of Mesa, and others.

Irrigation—Phoenix, Ariz.—Chas. Stokes and F. H. Church, of Hunt, Ariz., reported to be investigating question of constructing an irrigation system along Colorado River; one of proposed dam sites is 8 miles below Hunt.

Wharf—New Westminster, B. C.—It is reported that the Canadian Pacific Ry. Co. (F. W. Peters, Gen. Supt., Vancouver, B. C.) will extend its wharf here, to outer harbor line.

Dredging — North Vancouver, B. C.—Plans are reported completed by Dominion Shipbuilding Eng. & Drydock Co., Canada Life Bldg., Vancouver, for dredging here for proposed drydock and are awaiting approval of specifications by Dominion Government.

Structural Steel for Pier—Panama.—Bids desired until Jan 23, by General Purchasing Officer, Panama Canal, Washington, D. C., for furnishing and erecting structural steel and miscellaneous material for Pier No. 7, Cristobal Terminal docks, Circular No. 888, advertised in Engineering Record.

ELECTRIC RAILWAYS.

Items Arranged Geographically

Brooklyn, N. Y.—The Public Service Comn. for the First Dist., New York, has sent to the Interborough Rapid Transit Co. for its criticism and suggestions the form of contract for construction of Sect. 2 of Route 12, the Eastern Parkway subway in Brooklyn. This section extends from end of the present construction, at Prospect Park Plaza, out Eastern Parkway, to a point 635 ft. east of the center line of Nostrand Ave., and includes the spur turning southeasterly into Nostrand Ave. for the Nostrand Ave. subway. The company will have 10 days in which to consider the contract and return it to the Comn. with its recommendations, after which the Comn. will adopt it and order advertisements for bids.

Buffalo, N. Y.—International Ry. Co. has asked Public Service Comn. of Second Dist. permission to build extension from Buffalo to Niagara Falls and to issue bonds for same.

Glens Falls, N. Y.—The Hudson Valley Ry. Co plans to build one mile track in Glens Falls during 1915. Jas. MacMarten, Ch. Engr., Albany.

Monticello, N. Y.—Preliminary arrangements being made to organize Monticello & Middletown R.R. Co. to construct electric railway between Monticello and Middletown. Blake A. Mapledoram, Monticello, Engr., is said to be interested.

New York, N. Y.—No bids were opened Dec. 29 by Public Service Comn., for the First Dist., 154 Nassau St., for construction of Sect. 4, of the Routes 4 and 36, a part of the Bway.-4th Ave. Rapid Transit R. R. in Boro. Manhattan, and the letting has been indefinitely postponed until courts decide dispute over alien labor law. Work consists of a 2, 4 and 6 track underground railroad extending northerly under 7th Ave. from 51st to 59th St. and easterly under 59th St. to a point 22 ft. west of westerly building line of 7th Ave. extended.

Tryonville, Pa.—Titusville Electric Traction Co. will construct 12½-mile line between Tryonville and Cambridge Springs. A. N. Egbert, Secy., Titusville.

★*Items marked thus give the names of parties awarded contracts.*

Daytona, Fla.—Construction of electric railway between Daytona and Sanford, via De Land, is reported contemplated by I. Michael Sholtz. Construction of bridge over St. Johns River at Monroe Ferry in Sanford is contemplated.

New Orleans, La.—New Orleans Ry. & Light Co. during 1915 will build 10½ miles new track. M. S. Sloan, Gen. Mgr., New Orleans.

Newport, Tenn.—Carolina, Greenville & Northern R.R. Co. is chartered to construct 30-mile railway from Newport to Kingsport. H. S. Reed, Los Angeles, Cal., Pres. ,and Jas. L. Callahan, New York, N. Y., Vice-Pres.

Cincinnati, O.—Cincinnati Traction Co. plans to construct 2-mile extension in Cincinnati. Thos. Elliott, Ch. Engr., Cincinnati.

Galion, O. — Right-of-way has been secured for constructing 39-mile railway from Galion, Westpoint, Mt. Gilead, Cardington, Ashley and Delaware. S. P. Gage, Marengo, Pres. T. E. Buck, Mt. Gilead, Ch. Engr.

Chillicothe, Ill.—Preliminary arrangements being made to build electric railway between Chillicothe and Peoria. E. F. Hunter and E. A. Mitchell are among those interested.

Peoria, Ill.—Work will begin in spring by Chicago, Peoria & Quincy Ry. Co. on proposed railway between Peoria and Quincy.

Temple, Tex. — Southwestern Traction Co. will build 2.3-mile extension during 1915. W. G. Haag, Ch. Engr., Temple.

Seattle, Wash.—Puget Sound Traction, Light & Power Co. plans to spend $100,000 for repairs to right-of-way of Seattle-Tacoma Interurban Ry. between Seattle and Tacoma, and for constructing 2 steel bridges, one over White River near Kent and one over Black River at Duwamish. Geo. P. James, Ch. Engr., Seattle.

Los Angeles, Cal.—Surveys being made by City Engineers Dept. of route of proposed railway to extend northerly from N. Pritchard St. and North Broadway to Glen Alta, Schuetzen Park and Hermon Dists. to boundary limits South Pasadena.

Phoenix, Ariz.—Phoenix Ry. Co. contemplates extending line from terminus at S. 1st Ave. to city limits and ½ mile from city limits to Riverside Park. J. P. Gould, Ch. Engr., Phoenix.

St. Johns, N. B.—St. Johns Ry. Co. plans to construct 1½ mile track during 1915. W. D. Reid, Gen. Mgr., St. Johns.

RAILROADS.

Items Arranged Geographically

Trenton, N. J.—Press reports state that about $3,000,000 will be spent for railroad work in Trenton and vicinity, including a freight station for the Pennsylvania R. R. Co., a number of bridges at city streets that cross Delaware and Raritan Canal, and a park system along the canal feeder east of Prospect St.

Beaver Falls, Pa.—The State Water Supply Comn., at Harrisburg, has approved plans of the Pittsburgh & Lake Erie R.R. Co. (J. A. Atwood, Ch. Engr., Pittsburgh, Pa.) to make changes in culverts, bridges and stairway at Beaver Falls.

Huntsville, Ala.—The Nashville, Chattanooga & St. Louis R.R. Co. (H. McDonald, Ch. Engr., Nashville, Tenn.) reported to be considering construction of a new line from Huntsville to Guntersville along Tennessee River.

Manchester, Ky.—Edwin W. Gearhart and J. A. Heim, of Scranton, Pa., have been here with some railroad men of Brookville, Pa., looking over proposed right-of-way of a railroad from Barbourville to Manchester, Ky.

Salina, Kan.—A charter has been granted to the Salina Northern R.R. Co., with a capital of $100,000, to construct a railroad to connect Saline and Osborne, 80 miles through Salina, Mitchell and Osborne Counties. Incorporators: F. C. York, of Salina; Thos. F. Brann, of Lincoln Center; F. L. Brown, of Sylvan Grove, and others.

PUBLIC BUILDINGS AND SCHOOLS.

Items Arranged Geographically

Boston, Mass.—Mayor and the School-house Comrs. reported to be considering erection of building for exclusive use of School Com.; probable cost $225,000.

Providence, R. I.—Clark & Howe, 76 Weybosset St., have about completed plans for the Laurel Ave. school, estimated to cost $190,000.

Binghamton, N. Y.—Citizens voted in favor of issuing $106,000 bonds for completing the high school and purchasing of additional land for the New St. School.

Crogan, N. Y.—Plans being prepared by D. D. Kreff, Watertown, for a parochial school to be erected for the St. Stephen R. C. Church next spring; cost $50,000. Rev. Father Hillery, Pastor.

Glens Falls, N. Y.—Following are four lowest bids received by Superv. Archt., Washington, D. C., on the bids opened Dec. 17 for erecting the U. S. Post Office (a) limestone, (b) sandstone: Chas. McCaul Co., Philadelphia, Pa., (a) $64,539, (b) $64,939; Lewis P. Fluhrer Co., New York, (a) $65,791; Altoria Realty & Constr. Co., New York, (a) and (b) $62,964; Geo. B. Wells & Co., New York, N. Y., (a) $61,552, (b) $62,000; Wm. H. Egan, New York, N. Y., (b) $66,813.

Long Island City, L. I., N. Y.—No contract was let on bids asked until Dec. 22 by Borough President for general construction, etc., of a stable and section house for Bureau of Street Cleaning, Flushing and Metropolitan Aves., Ridgewood, Boro. Queens. Security $25,000. Letting was indefinitely postponed.

Manhasset, L. I., N. Y.—Reported bids desired until Jan. 8 by Bd. Educ. for erecting 2-story school: cost about $70,000. F. H. Briggs, Archt., Plandome, L. I.

★**New Brighton, S. I., N. Y.**—Contract awarded to John H. Parker Co., 315 4th Ave., New York, on bids opened Dec. 22 by Boro. President, New Brighton, for Contract No. 2, general construction of an additional county court house at St. George, Boro. Richmond, at $237,985. Other bids: Wm. Bradley & Son, Vernon Ave. and Noble St., Long Island City, $239,000; John T. Brady Co., 103 Park Ave., New York, $239,510; T. A. Clark Co., Brooklyn, $243,000; Conners Bros. Co., 64 W. 88th St., New York, $248,700; John Auer & Sons, Brooklyn, $249,942; Jacob A. Zimmermann, Inc., New York, $249,999; Altoria Realty & Constr. Co., 3 E. 44th St., New York, $253,000; Geo. A. Fuller Co., 111 Bway., New York, $257,000; Libman Contr. Co., 107 W. 46th St., New York, $254,485; Albert Winternitz, 103 Park Ave., New York, $258,000; P. J. Carlin Constr. Co., 1123 Bway., New York, $258,-700; Thos. Reilly, Philadelphia, Pa., $259,-885; Marble Arch. Co., 216th St. and Bway., New York, $269,500; P. J. Brennan & Son, 624 Madison Ave., New York, $274,250; J. E. & A. L. Pennock, Philadelphia, $276,400; Concord Constr. Co., Brooklyn, $283,652; John J. Hearn Constr. Co., 271 W. 125th St., New York, $290,-275; Lincoln Steel-Fleming Co., 17 Madison Ave., New York, $294,146; Edgar A. Levy Constr. Co., 505 5th Ave., New York, $313,021. Carrere & Hastings, Archts., 225 5th Ave., New York.

Rockville Center, L. I., N. Y.—Citizens voted in favor of issuing $50,000 bonds for site and school to be erected on Morris Ave.

Syracuse, N. Y.—Bids will soon be asked by Comr. Pub. Wks. for erecting a 3-story brick storehouse, 66 x 124 ft., at Tracy and Wilkinson Sts., according to plans by H. W. Franklin, City Engr.; cost $40,000.

White Plains, N. Y.—A committee appointed by Bd. Superv. to select site for penitentiary to be used as a jail and workhouse and to cost $400,000.

Yorktown Heights, N. Y.—Bids desired until Jan. 12 by Wm. B. Osgood Field, Pres. Bd. Mgrs. N. Y. State Training School for Boys, 2 W. 45th St., New York, N. Y., for construction, heating, plumbing and electric work for 7 cottages; for construction of power house and coal pocket (this does not include boiler plant, plumbing or electric work) and for water supply system for the N. Y. State Training School for Boys, Yorktown Heights, N. Y., advertised in Engineering Record. Lewis F. Pilcher, State Archt., Albany.

Newark, N. J.—Two lowest bids received Dec. 23 by Pub. Bldg. Com. of the Common Council for erecting the East Side bath house including heating, etc., submitted by Philip Mackinson at $81,089, and Essex Constr. Co. at $81,400.

New Brunswick, N. J.—A. Merchant, 363 George St., is architect for the high school, to cost $150,000.

Coaldale, Pa.—School Bd. intends erecting a 2-story brick and stone high school, according to plans by Clye S. Adams, Philadelphia; cost $50,000.

Philadelphia, Pa.—Bids desired by Jan. 8 by J. Horace Cook, Supt. Bldgs., Bd. Educ., for erecting Longfellow School, 23d Ward, 21 divisions and central heating plant; Southwark School, 1st Ward, 18 room addition and Fitler School, 22d Ward, 6 room addition.

Pittsburgh, Pa.—Preliminary plans have been submitted to the Bd. Educ. by Alden & Harlow, Farmers' Bank Bldg., for the South Hills High School to be erected at Ruth and Secane Sts., Mt. Washington, at a cost of $265,000.

Wilkes-Barre, Pa.—Plans prepared by Owen McGlynn, Wilkes-Barre, for a 2-story brick and stone school to cost $60,000.

★**Richmond, Va.**—Contract for erecting school on Bainbridge St. awarded to A. M. Walkup & Co., American Bank Bldg., at $99,820.

Bartow, Fla.—Bids desired by City Council until Jan. 31 for furnishing material and erecting a City Hall. Marks & Sheftall, Clark Bldg., Jacksonville.

★**Columbia, Tenn.**—Contract for erecting city and county high school awarded to W. R. Willersford Co., Nashville, at $58,300.

Champion, O.—Plans being prepared by Kling & Zeck, Youngstown, for a 2-story school.

★**Cincinnati, O.**—Contracts which total a cost of $178,808 have been awarded by Directors Univ. of Cincinnati for erecting the chemistry building at the Univ. as follows: Excavating masonry and concrete footing, John Lacker & Son; reinforced concrete, Roos Bros., 2814 Staunton Ave.; carpenter work, also fixtures, M. Marcus Bldg. Co., 2023 Reading Rd.; structural and ornamental iron and steel work, Pottlhoff Constr. Co., Front and Harriet Sts.; cork and tile work, David Kennedy, Inc.; painting and glazing, Jacob Simon, Merchants Bldg.; sheet metal work and roofing, Harkness & Towler, 1662 Providence St.; lathing and plastering, W. C. Bunyan, 326 Wayne Ave.; marble, slate and alberene, Standard Marble Wks., 706 W. Front St.; cement work, Chas. Kuhl Art Stone Co., 601 Hunt St.; elevator, Warner Elevator Co., 2613 Spring Grove Ave.; brick and terra cotta work, tile partitions and granite work, David Hummel Bldg. Co., 2629 Spring Grove Ave.; plumbing and gasfitting, Wm. Hillenbrand Co., 2307 W. 8th St.; heating, John J. Vogelpohl Co., 4156 Hamilton Ave.; ventilating, Williamson Heater Co., 335 W. 5th St.; temperature regulation, Johnson Service Co., Perin Bldg.; grading and roadway, Henkel & Sullivan, 710 Mercantile Library Bldg.

Cincinnati, O.—City Council passed an ordinance appropriating $25,000 for preliminary work on the proposed municipal auditorium, the money to be used for demolition of old hospital buildings and for making test holes for the foundation of proposed building, which is to cost $250,000.

Cleveland, O.—Additions are to be be erected by Bd. Educ. to the Murray Hill, Hazeldell and Central Schools and a new building known as Corlette School erected. Plans are being prepared for a 20 room addition to the Central School on Central Ave. and E. 65th St. and for the West Side School.

Cleveland Heights, O.—Citizens voted in favor of issuing bonds, $75,000 to be used to erect a grade school and $40,000 for a heating plant in a school.

Findlay, O.—Plans about completed for the school buildings to be erected next year by Bd. Educ., one on south side and one on north side, the cost to be $240,000. Repairs are also to be made to other buildings, including the high school; the total expenditure to be about $300,000.

Hamilton, O.—City Hall bonds amount to $200,000 have been sold.

Plans for the East Hamilton High School are now under consideration by Bd. Educ.

Lakewood, O.—Bd. Educ. has selected C. W. Hopkinson, Rose Bldg., Cleveland, as architect to prepare plans for a 2-story brick addition to Lincoln School, Clifton Boule.; a 2-story addition to Madison School, W. Madison Ave.; each building to cost $38,000; also plans for 2-story brick addition to Harrison School, Dowd and Quail Sts.; cost $28,000, and 2-story addition to Franklin School, Franklin Ave.; cost $22,000.

Leetonia, O.—Bd. Educ. said to be considering erecting high school.

McCutchenville, O.—Citizens voted to issue $40,000 bonds for new central high school.

Niles, O.—Reported plans of McKim, Mead & White, New York, N. Y., selected for the McKinley Memorial Building to be erected here at a cost of about $500,000, including site, maintenance, etc.

★**Portsmouth, O.**—Contract for erecting the Grant School awarded to Jas. I. Barnes, of Logansport, at $45,777.

Sandusky, O.—School bonds amounting to $50,000 have been sold.

St. Mary's, O.—Citizens voted Dec. 8 in favor of issuing $50,000 bonds for erecting school. Bd. Educ. is reported to be considering plans for the building. F. D. Ansman, City Clk.

Warren, O.—C. E. Carey, of School Bd., writes bids will be received latter part of January for erecting three 8-room and one 4-room school, all of brick and concrete; total cost $140,000. Frank L. Packard, Archt.

Ft. Wayne, Ind.—Plans of Chas. R. Weatherhogg, Hamilton Natl. Bank Bldg., have been selected for the fireproof 5 to 6 story Hope Hospital.

Ishpeming, Mich.—Following are four lowest bidders for constructing U. S. Post Office, bids opened Dec. 19 (a) limestone, (b) sandstone: James Devault, Canton, O., (a) $55,477, (b) $56,477; Frank L. Johnson & Co., Duluth, Minn., (a) $57,496, (b) $59,046; General Constr. Co., Milwaukee, Wis., (a) $57,630, (b) $59,230; Geo. W. Stiles Constr. Co., Chicago, Ill., (a) $57,-683; Lemis E. Chaussee, Negaunee, (b) $56,235.

Sault Ste. Marie, Mich.—Reported Bd. Educ. desires plans for new high school, for which citizens recently voted to issue $150,000 bonds.

Alton, Ill.—An addition costing $50,000 is to be erected to the Cathedral Orphanage. Bishop Jas. Ryan may be able to give further information.

Ottawa, Ill.—Citizens voted Dec. 19 in favor of issuing $150,000 bonds for erecting a high school. C. H. Kingman may be able to give further information.

★**Robinson, Ill.**—Contract for erecting U. S. Post Office reported awarded to A. W. Lane, Chicago, at $42,652.

Rock Island, Ill.—Reported bids desired about March 1 by the Finance Com. (E. D. Fisher, Secy.) for $75,000 jail bonds and $30,000 bridge bonds.

Springfield, Ill. — Illinois Education Comn. adopted a resolution favoring the appropriation by General Assembly of $1,-000,000 for the purchase of a site and the erection of a memorial building in Springfield to mark the centennial of the admission of Illinois to the Union.

★**Madison, Wis.**—Reported contract for erecting the physics building at the Univ. of Wisconsin awarded to Wisconsin Constr. Co., Chippewa Falls, at $180,775.

★Contract for marble and ornamental iron work for the new State Capitol, including the dome and the north wing, reported awarded jointly to the Flour City Ornamental Iron Wks. and the Northwestern Marble and Tile Co., both of Minneapolis, Minn., at a total cost of about $480,000.

★Additional contracts in connection with the interior work of the north wing at the State Capitol, have been awarded as follows: Mason work, McNulty Bros. Co., Chicago, Ill., $97,200; carpenter work, Reisen & Reisen, Milwaukee, $36,473; heating and ventilating, Mueller Co., Milwaukee, $61,400; electrical work, Paul F. Harloff Co., Madison, $23,790; plumbing, P. J. Fox, Milwaukee, $17,900.

Sparta, Wis.—Contract for erecting U. S. Post Office awarded to Jas. Devault, of Canton, Ill., at $46,638.

Crookston, Minn.—Comn. in charge of the construction of the Polk-Norman tuberculosis sanitarium has decided to erect the main building at once and 2 cottages later. Address Co. Comrs., Crookston.

Duluth, Minn.—Bids desired about Jan. 20 for the erection of a 4-story, fireproof, brick and concrete armory, 200 x 145 ft., by Kelly & Williams, Archts., Duluth.

Madison, Minn.—It is stated that a tuberculosis sanitarium costing $60,000 is to be erected here and contract is to be let by State Bd. of Control at St. Paul.

Havre, Mont.—Bids desired until Jan. 5 by County Commissioners for $125,000 bonds for constructing County Courthouse and jail. F. F. Bossouth, Archt., Havre.

Bryan, Tex.—Lowest bids received Dec. 18 by Superv. Archt., Washington, D. C., for constructing U. S. Post Office at Bryan were as follows: Geo. A. Shaul, Seneca, Kan., $41,353, using limestone and making building stucco faced, or $43,373, building brick faced; I. B. Hubbard, Bryan, $44,084, using sandstone and making building stucco faced, or $48,264, building brick faced.

★**Galveston, Tex.**—Contract for erecting the combined city hall and auditorium awarded to Gross Constr. Co., Waco, at $205,693.

Reported bids desired Jan. 7 by Bd. City Comrs. for heating, electric wiring, ice water plants and elevator for above building.

Oklahoma City, Okla.—Later official reports state bids desired until Jan. 14 by State Capitol Comn. for construction, including mechanical equipment of Oklahoma State Capitol. This building complete is to cost $1,500,000.

Bids desired until Jan. 16, same place as above, for supplying following material to be used in concrete frame of Oklahoma State Capitol: 8000 cu. yds. rock, 4000 cu. yds. sand, 13,500 bbls. cement, 500 M ft. lumber, 850 tons reinforcing steel. Layton & Smith, Archts., Majestic Bldg.

Seattle, Wash.—The Port of Seattle Comn. (J. R. West, Ch. Engr.) informed us that the proposed cold storage fruit warehouse will be 7 stories, of concrete, 147 x 195 ft., and cost $320,000. Bids not yet called for.

Seattle, Wash.—See "Water Works."

Walla Walla, Wash.—Co. Comrs. intend erecting a new court house on site of present court house and are having plans prepared by M. Osterman, care of the Court House; cost $150,000.

Fresno, Cal.—C. C. Starr, Supt. Bd. Education, writes bids have not yet been asked for erecting the proposed Kirk school.

★**Lindsay, Cal.**—Contract for erecting school awarded to Beason & Johnson, of Kingsburg; cost, complete, about $50,000.

San Francisco, Cal.—Plans being prepared by City Dept. Architecture, Temporary City Hall, for a 2-story fire station to be erected on Polk St. at a cost of $40,000.

Woodland, Cal.—School bonds amounting to $100,000 have been sold.

Pocatello, Idaho.—It is reported steps will be taken at once to rebuild the high school which was recently destroyed by fire. Dr. O. B. Steely, Pres. School Bd.

Guelph, Ont. — Secretary Bd. Educ. writes nothing definite has been done toward erecting addition to Collegiate Inst. on Paisley St.

Vancouver, B. C.—Plans for the proposed civic center are to be prepared by Thos. Korner and M. Matocks, of Vancouver; cost about $2,500,000.

Plans being prepared by A. A. Cox, Carter Cotton Bldg., for an addition to the Vancouver General Hospital at 12th and Willow Sts. to cost about $85,000.

Plans have been submitted to the Marine Dept. of the Dominion Government, at Ottawa, Ont., for the reinforced concrete lighthouse to be erected at Amphitrite Point; cost $59,000.

★*Items marked thus give the names of parties awarded contracts.*

PRIVATE BUILDINGS.

Items Arranged Geographically

Brooklyn, N. Y.—Public Service Comn. approved plans and contract submitted by New York Municipal Ry. Corp. for constructing stations on the Sea Beach Ry., as reconstructed, for the dual system of rapid transit. The stations are 8th, Ft. Hamilton, New Utrecht, 18th, 20th Aves., Avenue U and 86th St.

Altoona, Pa.—Knights of Pythias propose erecting at 8th Ave. and 12th St. a 5-story lodge building.

Lancaster, Pa.—Bids reported desired by H. S. Estap, Archt., Publication Bldg., Pittsburgh, for erecting a 3-story brick and stone Y. M. C. A. building.

New Castle, Pa.—Plans prepared by C. C. & A. L. Thayer, Mercantile Bldg., for a 3-story brick and stone Masonic Temple; cost $45,000.

★**Philadelphia, Pa.**—Contract awarded to Lam Bldg. Co., 624 Cherry St., for erecting a 2-story synagogue at 58th and Walnut Sts. for the Congregation Beth-El; cost $45,000. Same company has secured contract for erecting 4-story warehouse at 2d and Church Sts. for Harry Fliegelman.

Pittsburgh, Pa.—South Hills Hall Assoc. is reported taking steps to erect a combined business and lodge building in West Liberty Ave., South Hills, to be 3 stories, brick and terra cotta, and cost $45,000.

Wilmington, Del.—Plans being prepared by Wallace E. Hance, Wilmington, for rebuilding the Avenue Theater, which was recently damaged by fire; cost about $50,000.

Plans have been prepared by John J. Kennedy, Ford Bldg., for a 4-story brick, stone and terra cotta club house for the Knights of Columbus.

Baltimore, Md.—Bids reported desired until Jan. 15 by Israel Silberstein, Equitable Bldg., for erecting an apartment at Callow Ave. and Park Front Terrace. Probable cost $55,000. Stanislaus Russell, Archt., 2900 Clifton Ave.

Oliver B. Wight, 1008 Munsey Bldg., is architect for 2-story brick, stone and reinforced concrete theater to be erected by Northern Amusement Co. at a cost of $100,000. Henry W. Webb, Pres., Title Bldg.

Charleston, W. Va.—Plans being prepared by F. Rus Warne, Charleston, for reconstructing the Masonic Temple at a cost of $70,000.

★**Monroe, La.** — Contract for erecting the synagogue at St. John and Oak Sts. awarded to Frank Masling, Monroe, at $41,000.

★**Cleveland, O.**—H. L. Stevens & Co., 910 S. Michigan Ave., Chicago, Ill., Archt., for a 14-story hotel to be erected at Superior Ave. and E. 9th St., writes no general contract will be awarded. Structural steel contract given to the Forest City Steel & Iron Co., Cleveland. Other contracts will be awarded during January and February.

Columbus, O.—Holabird & Roche, Monroe Bldg., Chicago, Ill., are architects for the 13-story Deschler Hotel, bids for which are being received.

Lakewood, O.—Plans prepared by Wm. C. Jansen, 403 O'Brien Bldg., for a stone edifice to be erected at Alameda and W. Madison Aves. for the St. Cyril and Methodius Church. Rev. A. J. Masat, Pastor.

Franklin, Ind.—Preliminary plans being prepared by Herbert W. Foltz, Indiana Pythian Bldg., Indianapolis, and bids will probably be received in February for erection of a home for Grand Lodge, F. A. M., of Indiana; it will be on cottage plan ultimate capacity 600; there is now a fund of $150,000 available.

Huntington, Ind.—Plans will be prepared about Jan. 1 by J. T. Johnson & Co., State Life Bldg., Indianapolis, for a 4-story brick and stone hotel, 67 x 137 ft., for J. J. Kindler; cost about $80,000.

★**Springfield, Ill.**—Contract for rebuilding the Johnston-Hatcher Bldg. at 7th and Adams Sts. awarded to Frank W. Flesch, Springfield.

Des Moines, Ia.—Reported Harris Emery Co. propose erecting at 7th and Walnut Sts. a 9-story steel, fireproof building.

★**St. Paul, Minn.**—Contract for constructing the new Mannheimer Bros. store building, 7 stories, fireproof, granite and brick, at St. Peter and 6th Sts., awarded to Fred. Norlander, of St. Paul. Cost completed is to be about $1,000,000. A. H. Stem, Archt.

Emporium Co. intends erecting a building at Robert, Jackson, 7th and 8th Sts., which is to cost $250,000.

Sioux Falls, S. D.—Plans being prepared for a 3-story brick and stone club house to be erected by the Elks on Dakota Ave. and 9th St. at a cost of $75,000.

★**Helena, Mont.**—Contract for erecting the Masonic Temple awarded to Gagnon & Co., Helena, at $82,000. C. S. Haire, Archt., Helena.

Olympia, Wash.—Plans are to be prepared by V. W. Voorhees, Eitel Bldg., Seattle, for the 7-story, reinforced concrete, brick and terra cotta hotel to be erected by the Olympia Hotel Co. at 6th Ave. and Franklin St., at a cost of $100,000. Bids for construction will be asked about Feb.

Seattle, Wash. — Contract reported awarded to Woeck & Behrns, Oriental Bldg., for erecting 1-story reinforced concrete fireproof addition to Arcade Bldg. for the Arcade Investment Co.; cost $50,000.

Plans completed by Bebb & Gould, Denny Bldg., for a 5-story reinforced concrete and terra cotta addition to be erected to the Fischer Bldg., 3d and Pine Sts.; cost, $90,000.

North Bend, Ore.—Plans completed by J. E. Tourtellotte, Rochschild Bldg., Portland, for hotel to be erected by North Bend Hotel Co., at a cost of $100,000.

San Francisco, Cal.—Plans are being prepared by Rousseau & Rousseau, Monadnock Bldg., for a 6-story steel frame apartment house to be erected at Hyde and Post Sts.; cost about $100,000.

Windsor, Ont.—The United States Hotel Co., represented by Hugh McSween and R. M. Jaffray, both of Windsor, reported to be taking steps to erect a hotel here costing $250,000.

NEW INDUSTRIAL PLANTS.

See also "Private Buildings."

Items Arranged Geographically

Middleport, N. Y.—A system of conveyors is to be installed in the plant of the Niagara Sprayer Co. on Park Ave. M. Dosch, Mgr.

★**Newburgh, N. Y.**—Contract reported awarded to Jas. F. Templeton & Son for erecting an addition to the plant of the Alberger Pump & Condenser Wks.

★**Oneonta, N. Y.**—Contract awarded to Bennett & Butts, Oneonta, for erecting the plant for the Bauer Chemical Co., 30 Irving Pl., New York. Plant will consist of two buildings, each 2 stories, one 45 x 62 ft. and the other 42 x 82 ft., and a power house 44 x 45 ft., 1 story.

Pleasant Valley, N. Y.—Jas. B. Thompson & Co. will make extensive repairs and install equipment in Garner Mills for the manufacture of twine and thread.

Rifton, N. Y.—Reported improvements are to be made and additions erected at the plant of the Rifton Carpet Co.

Syracuse, N. Y.—Bids reported desired by Taber & Baxter, Archts., Gurney Bldg., for a 2-story addition to the sheet metal works of H. E. Hessler Co., 512 N. Salina St.

Chester, Pa.—The Benzol Products Co., Philadelphia, reported to have secured a site on Marcus Hook on which to erect a plant for manufacture of dyestuffs.

Monongahela, Pa.—Plans being prepared for an ice and cold storage plant to be erected by the Universal Ice & Cold Storage Co.

West Reading, Pa.—Atlantic Refining Co. reported to be taking steps to erect a plant costing $150,000.

★**New Castle, Del.**—Contract for erecting a plant here for the Bethlehem Steel Co. reported awarded to Wm. Steele & Sons Co., Philadelphia, Pa. Cost is reported at $50,000.

★**Overton, Neb.**—Contract for rebuilding the mill for the Lexington Mill & Elevator Co. reported awarded to Burrell Eng. & Constr. Co., Chicago, Ill., and is to cost, with equipment, $50,000.

Kansas City, Mo.—Philadelphia Quartz Co. will erect a plant in West Armourdale costing $100,000.

Galveston, Tex.—The Southern Pacific Co. intends erecting the superstructure of elevator on Pier 41 to be of concrete, fireproof, and have a capacity of 1,000,000 bu.

Seattle, Wash.—Reported L. Y. Stayton, California Bldg., Tacoma, will erect a factory for manufacture of reinforced concrete piles; cost $150,000.

Los Angeles, Cal.—Pacific Coast Beef & Provision Co. will erect a storage and ice plant adjoining their office building on Lyon St.; sost $250,000.

Brantford, Ont.—Plans completed for a factory which the Brantford Scale Co. will erect on Dalhousie St.

Falkirk, Ont.—Batch & Ripin will erect a plant here for manufacture of cement tile; machinery and equipment will be required.

Welland, Ont.—Extensive additions are to be made to the plant of the Electro Metals, Ltd., and additional electric furnaces installed.

Ft. George, B. C.—Plans completed by Wilson & Wilson, 532 Granville St., Vancouver, for brewery to be erected for the Port Angeles Brewing & Malting Co., of Port Angeles, Wash.; cost $95,000.

MISCELLANEOUS.

See also "Hydraulic Construction and River Improvements."

Items Arranged Geographically

Main Chute—Cleveland, O.—Bids desired until Jan. 21 by Supervising Architect, Washington, D. C., for installing a mail chute in U. S. Post Office, Custom House and Court House, Cleveland.

Elevator—Milwaukee, Wis.—Bids desired until Jan. 22 by Supervising Architect, Washington, D. C., for installing, complete, an electric freight elevator in U. S. Appraiser's Stores, Milwaukee.

Power Plant—Montesano, Wash.—Plans are reported completed by R. J. Andrus, Mgr. Northwest Electric Light & Water Works, for a new steam power plant to be located on the water front.

Crushing Machinery, Etc.—Winnipeg, Man.—See "Water Works."

Proposals

For Proposals Advertised see Page 40.

WATERWORKS.

Bids Close.		See Eng. Record.
Jan. 4.	Water Wks., Area, Ill. Adv. Dec. 12 to 26.	Dec. 12
Jan. 5.	System, Warden, Wash.	Dec. 19
Jan. 6.	Pipe, Etc., Cincinnati, O.	Jan. 2
Jan. 6.	Pipe, Boston, Mass.	Jan. 2
Jan. 7.	Pipe, Panama	Jan. 2
Jan. 8.	Improv., Corpus Christi, Tex. Adv. Nov. 28 to Dec. 26.	Nov. 28
Jan. 8.	Pump, Pittsburgh, Pa.	Jan. 2
Jan. 8.	Fire Hydrants, Louisville, Ky.	Jan. 2
Jan. 9.	Supply for College, Bowling Green, O.	Dec. 12
Jan. 11.	Distributing System, New Boston, O. Adv. Dec. 26.	Dec. 26
Jan. 12.	Pump. Sta., Montreal, Que.	Jan. 2
Jan. 15.	System, Kensington, Md. Adv. Dec. 19, 26.	Dec. 19
Jan. 15.	Exten, to System, Clearwater, Fla.	Jan. 2
Jan. 18.	Pumps, Etc., Larned, Kan.	Dec. 19
Jan. 18.	Equipment, Winnipeg, Man.	Jan. 2
Jan. 19.	Mains, Shaker Heights, O.	Dec. 26

SEWERAGE AND SEWAGE DISPOSAL.

Jan. 5.	Sect. 18 (Central Portion), Newark, N. J. Adv. Dec. 5, 19, 26.	Nov. 28
Jan. 5.	West Palm Beach, Fla.	Dec. 26
Jan. 7.	Lockport, Ill.	Jan. 2
Jan. 7.	Elyria, O.	Jan. 2
Jan. 12.	Sect. 18 (Northerly Portion), Newark, N. J. Adv. Dec. 19 to Jan. 2.	Nov. 28
Jan. 15.	Kensington, Md. Adv. Dec. 19, 26.	Dec. 12
Jan. 18.	Sandstone, Minn.	Jan. 2
Jan. 19.	Shaker Heights, O.	Dec. 26

BRIDGES.

Jan. 5.	Howard, S. D.	Nov. 28
Jan. 5.	De Smet, S. D.	Dec. 26
Jan. 5.	Lake Charles, La.	Dec. 26
Jan. 5.	Lake Charles, La.	Jan. 2
Jan. 5.	Gate City, Va.	Jan. 2
Jan. 6.	Pierre, S. D.	Nov. 28
Jan. 6.	Hill City, Minn.	Jan. 2
Jan. 7.	Bison, S. D.	Dec. 19
Jan. 7.	Covington, Ind.	Jan. 2
Jan. 8.	Miller, S. D.	Nov. 21
Jan. 9.	Bakersfield, Cal.	Jan. 2
Jan. 11.	Anthony, Kan.	Jan. 2
Jan. 12.	York, Neb.	Jan. 2
Jan. 12.	Great Falls, Mont. Adv. Dec. 12 to 26.	Dec. 12
Jan. 12.	Ada, Minn.	Dec. 26
Jan. 14.	Hastings, Neb.	Dec. 26
Jan. 15.	Ada, Minn.	Dec. 19
Jan. 25.	Kearney, Neb.	Jan. 2
Jan. 28.	Ottawa, Ont.	Dec. 26

PAVING AND ROADS.

Jan. 5.	Albany, N. Y. Adv. Dec. 19 to Jan. 2.	Dec. 19
Jan. 5.	Junction City, Kan.	Dec. 26
Jan. 5.	Indiana	Dec. 26
Jan. 5.	Duluth, Minn.	Dec. 26
Jan. 5.	Indiana	Jan. 2
Jan. 5.	West Palm Beach, Fla.	Jan. 2
Jan. 5.	Maryland	Jan. 2
Jan. 6.	Indiana	Dec. 26
Jan. 6.	Crystal Falls, Mich.	Dec. 26
Jan. 6.	Indiana	Jan. 2
Jan. 6.	Santa Ana, Cal.	Jan. 2
Jan. 6.	San Diego, Cal.	Jan. 2
Jan. 7.	Buffalo, N. Y.	Jan. 2
Jan. 7.	Troy, O.	Jan. 2
Jan. 8.	Kenosha, Wis.	Dec. 26
Jan. 9.	Brooksville, Fla.	Jan. 2
Jan. 9.	Bakersfield, Cal.	Jan. 2
Jan. 11.	Louisville, Ky.	Jan. 2
Jan. 11.	Bay City, Tex.	Jan. 2
Jan. 12.	Indiana	Jan. 2
Jan. 13.	Galion, O.	Dec. 26
Jan. 13.	Bonners Ferry, Idaho	Jan. 2
Jan. 13.	Mt. Gilead, O.	Jan. 2
Jan. 15.	Edina, Mo.	Dec. 12
Jan. 16.	Chesterfield, N. J.	Jan. 2
Jan. 19.	Shaker Heights, O.	Dec. 26
Jan. 19.	Sulphur Springs, Tex. Adv. Dec. 26, Jan. 2.	Dec. 26
Jan. 22.	Texas	Jan. 2
Jan. 27.	Greenville, Tex.	Dec. 26
Feb. 4.	Bay City, Ore.	Dec. 26

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Jan. 4.	Pier Improvement, Philadelphia, Pa. Adv. Dec. 19.	Dec. 19
Jan. 5.	Breakwater, Wilmington, N. C. Adv. Nov. 21 to Dec. 5 and Jan. 2.	Nov. 21
Jan. 5.	Irrigation Work, Olathe, Colo. Adv. Dec. 12 to 26.	Dec. 12
Jan. 5.	Sea Wall, West Palm Beach, Fla.	Dec. 26
Jan. 6.	Hoist, Grand Junction, Colo.	Jan. 2
Jan. 7.	Dredging, Philadelphia, Pa. Adv. Dec. 5 to Jan. 2.	Dec. 12
Jan. 10.	Dyke, Tillamook, Ore.	Jan. 2
Jan. 11.	Drainage Work, Talmadge, Neb.	Dec. 12
Jan. 11.	Ditch, Owatonna, Minn.	Jan. 2
Jan. 12.	Drainage, White Castle, La.	Dec. 12
Jan. 12.	Ditch, Ada, Minn.	Dec. 26
Jan. 12.	Ditch, Edna, Tex.	Jan. 2
Jan. 15.	Repairs to Breakwater, Stonington, Conn.	Dec. 12
Jan. 15.	Ditch, Ada, Minn.	Dec. 19
Jan. 15.	Dredging, Mooresville, N. C.	Jan. 2
Jan. 19.	Pier, Michigan City, Ind. Adv. Dec. 26, Jan. 2.	Dec. 26
Jan. 20.	Levee and Ditch Work, Quincy, Ill. Adv. Dec. 26, Jan. 2.	Dec. 26
Jan. 20.	Ditches, Bemidji, Minn.	Dec. 26
Jan. 22.	Dredging, New York, N. Y. Adv. Dec. 26, Jan. 2.	Dec. 26
Jan. 23.	Structural Steel for Pier, Panama Adv. Jan. 2.	Jan. 2
Jan. 26.	Lock and Dam, Maysville, Ky. Adv. Dec. 26, Jan. 2.	Dec. 26
Jan. 29.	Ditch, Stillwater, Minn.	Dec. 26
Jan. 30.	Lock Gates, Wheeling, W. Va. Adv. Jan. 2.	Jan. 2
Feb. 4.	Drain, Gonzales, La.	Jan. 2
Feb. 5.	Dam, etc., Harrisonburg, La. Adv. Dec. 5 to 26.	Dec. 5
———	Piling, Concrete Wk., Etc., Buffalo, N. Y. Adv. Dec. 12, 19.	Dec. 12

PUBLIC BUILDINGS AND SCHOOLS.

Jan. 4.	La Junta, Colo. Adv. Nov. 28, Dec. 5.	Nov. 21
Jan. 5.	West Palm Beach, Fla.	Dec. 19
Jan. 5.	Calexico, Cal.	Dec. 26
Jan. 6.	Auburn, Me.	Dec. 12
Jan. 6.	Ft. Sam Houston, Tex.	Dec. 19
Jan. 6.	Okanogan, Wash.	Dec. 26
Jan. 7.	Osakis, Minn.	Dec. 5
Jan. 7.	Sioux Rapids, Ia.	Dec. 19
Jan. 7.	Minneapolis, Minn.	Dec. 26
Jan. 7.	Galveston, Tex.	Jan. 2
Jan. 8.	Philadelphia, Pa.	Jan. 2
Jan. 8.	Manhasset, L. I., N. Y.	Jan. 2
Jan. 9.	Bowling Green, O.	Dec. 12
Jan. 11.	Kinston, N. C.	Dec. 12
Jan. 11.	Ft. Leavenworth, Kan. Adv. Dec. 19 to Jan. 2.	Dec. 19
Jan. 12.	Crooksville, O.	Dec. 19
Jan. 12.	Newark, N. J.	Dec. 26
Jan. 12.	Montpelier, O.	Dec. 26
Jan. 12.	Yorktown Heights, N. Y. Adv. Jan. 2.	Jan. 2
Jan. 14.	Wilmington, N. C.	Dec. 26
Jan. 14.	Oklahoma City, Okla.	Dec. 26
Jan. 14.	Oklahoma City, Okla.	Jan. 2
Jan. 15.	Montreal, Que.	Nov. 28
Jan. 15.	Fresno, Cal.	Dec. 12
Jan. 15.	Gary, Ind.	Dec. 12
Jan. 15.	Anacostia, D. C. Adv. Dec. 19.	Dec. 19
Jan. 15.	Waldo, O.	Dec. 26
Jan. 16.	Oklahoma City, Okla.	Jan. 2
Jan. 18.	Madison, Wis.	Dec. 19
Jan. 18.	Ft. Strong, Mass.	Dec. 26
Jan. 19.	St. Louis, Mo. Adv. Dec. 19, 26.	Dec. 19
Jan. 20.	Duluth, Minn.	Jan. 2
Jan. 21.	Ft. H. G. Wright, N. Y. Adv. Dec. 26, Jan. 2.	Dec. 26
Jan. 22.	Uvalde, Tex.	Dec. 19
Jan. 25.	Ennis, Tex.	Dec. 26
Jan. 26.	McCook, Neb.	Dec. 26
Jan. 29.	Chanute, Kan.	Dec. 26
Jan. 30.	Mohawk, N. Y.	Dec. 26
Jan. 31.	Bartow, Fla.	Jan. 2
Feb. 8.	Tiffin, O.	Dec. 26
Feb. 16.	Cincinnati, O.	Dec. 12

PRIVATE BUILDINGS.

Jan. 15.	Baltimore, Md.	Jan. 2
Jan. 20.	East Liverpool, O.	Dec. 26

MISCELLANEOUS.

Jan. 5.	Garbage Equipment, Detroit, Mich.	Dec. 12
Jan. 5.	Repair Parts for Cars, Etc., Panama	Dec. 26
Jan. 8.	Metal, Etc., Ottawa, Ont.	Dec. 19
Jan. 9.	Locomotive Crane, Boston, Mass.	Dec. 26
Jan. 11.	Garbage Disposal, Jacksonville, Fla.	Dec. 26
Jan. 12.	Tower Clock, Danville, Va. Adv. Dec. 19, 26.	Dec. 19
Jan. 12.	Skylight for Patent Office Bldg., Washington, D. C. Adv. Dec. 19, 26.	Dec. 19
Jan. 13.	Mail Handling Apparatus, Minneapolis, Minn.	Dec. 26
Jan. 15.	Elevator, Manchester, N. H.	Dec. 26
Jan. 16.	Cranes, Norfolk, Va.	Sep. 26
Jan. 18.	Crushing Machinery, Etc., Winnipeg, Man.	Jan. 2
Jan. 21.	Mail Chute, Cleveland, O.	Jan. 2
Jan. 23.	Crane, Pearl City, T. H.	Dec. 26
———	Fire Alarm, Etc., Ladysmith, Wis. Adv. Dec. 26, Jan. 2.	Dec. 26

★*Items marked thus give the names of parties awarded contracts.*

NEW CONSTRUCTION ACTIVITIES

Conditions have not changed greatly during the week, but continue to indicate coming improvement at an early date. The Eastern railroads are already showing signs of activity as a result of the rate increase. The New Haven road's shops at New Haven have resumed work a week earlier than was expected. January orders for rails will exceed expectations, the Pennsylvania alone announcing a requirement for early delivery of 150,000 tons, part of which is already ordered. The Pennsylvania is also reported to be in the market for over 17,000 tons of bridge steel. Press reports state that the president of the Baltimore & Ohio has announced that that road will undertake at once $30,000,000 worth of improvements, much of which has been deferred for some time. A few more issues of county and municipal bonds have been sold, and bids are being asked on other issues.

Buildings

Increased activity in building work in the near future is foreshadowed. A projected oil plant at Staten Island will cost $1,500,000. A projected group of hospital buildings to cost $1,000,000 is reported from Philadelphia. York, Pa., will erect a $350,000 group of almshouse buildings. Plans are being prepared for a large grain elevator at Buffalo. At Paterson, N. J.; Washington, D. C.; Norfolk, Va.; Poughkeepsie, N. Y., and Joliet, Ill., plans are being prepared for buildings costing from $140,000 to $400,000. Among the contracts awarded is one for a $400,000 cotton mill at Salem, Mass. Bids are desired at New Brittain, Conn., for a $150,000 high school, and at Fresno, Cal., for a $350,000 normal school. Seattle, Wash., has issued permits during December for buildings valued at $1,298,000.

Bridges

Foremost among bridge projects comes the report that bids will soon be asked on the $1,750,000 international bridge across the Columbia River at Portland. This bridge will require 10,000 tons of steel. Three concrete bridges at Rome, Ga., will cost $150,000. A bridge contract for $120,000 was awarded at Jacksonville, Fla. Two $90,000 viaducts are reported, one awarded at St. Catharines, Ont., and one for which plans have been approved at Nashville, Tenn. Several smaller projects are mentioned.

Paving

At Albany, N. Y., bids have been opened on State road work amounting to nearly a million dollars. Bids on $50,000 worth of paving in New York City have also been opened. At Providence, R. I., alternate bids for $140,000 for paving are under consideration. Los Angeles, Cal., has awarded several paving contracts. Bids are asked on important road and paving work in Louisiana, in Maryland, at Vincennes, Ind.; Ottumwa, Iowa, and Houston, Tex. Yuba City, Cal., reports $110,000 worth of State highway bonds sold.

Waterworks, Sewers and Hydraulics

Another section of the Passaic Valley sewer will shortly be awarded. The low bid is $179,531. The low bid on an extension of a trunk sewer at Portland, Ore., was $173,083. Bids are desired on a large wood-stave pipe at Montrose, Colo. It is reported that a 3,000,000-gal. reservoir will be built shortly at Coshocton, Ohio. Louisville, Ky., has completed plans for a 2-mi. water main to cost $175,000. The Cleveland waterworks department contemplates spending $500,000 for various improvements. At Gonzales, La., bids are asked on a drainage project involving 2,000,000 cu. yds. of excavation. Baltimore, Md., desires bids for dredging approximately the same quantity of material from its harbor.

Miscellaneous

The Barge Canal terminal at Cleveland, N. Y., involving the construction of a harbor, a dock wall and two breakwaters, will be let on Feb. 2. The United States Government desires bids on three 600-ft. steel towers, one each at Pearl Harbor, Cavite, near Manila Bay, and San Diego. Grade crossing elimination work which has been ordered by the Wisconsin Railroad Commission at Milwaukee will cost $2,000,000.

WATERWORKS.

Items Arranged Geographically

Boston, Mass.—Following are 4 lowest bids opened Dec. 23 by Commissioner Pub. Wks., Boston, for constructing Faneuil Valley Brook conduit in Faneuil and Oakland Sts., Brighton: Henry Spinach Contr. Co., $16,584; Antony Cefalo, $16,661; John Landis, $17,194, and McCarthy & Walsh, $17,297.

★**Springfield, Mass.**—Contract reported awarded by Bd. Water Comrs. to R. D. Wood & Co., Philadelphia, Pa., for water pipe 8-in., at $20.95 per ton, 12 and 16-in. at $20.35 per ton, and standard fittings, $50 per ton; total cost, about $12,000.

Port Henry, N. Y.—It is proposed to expend $12,000 for additional supply. A. C Linden, Clk. Bd. Trus.

Coatesville, Pa.—Borough Council has passed ordinance providing for an increase of the water works appropriation, from $150,000 to $185,000.

★**Philadelphia, Pa.**—Contract has been awarded by Bd. Pub. Wks. for c.-i. water pipe, hydrants and specials to Standard Cast Iron Pipe & Fdy. Co., Bristol, at $7,000 (bids opened Dec. 15). Geo. S. Webster, Ch. Engr. and Surveyor.

Chestertown, Md.—The Water Bd. is reported to have decided to erect water tower, lay new mains and construct a power plant; cost $10,000 to $15,000.

Indian Head, Md.—Following are reported to be bids opened by the chief of the Bureau of Yards and Docks, Navy Dept., Washington, D. C., Dec. 19 for an additional artesian water supply at U. S. Naval proving ground, Indian Head: (a) for artesian water supply of not less than 400,000 gals. per 24 hours in addition to existing supply; (b) work complete on bidder's plans and specifications; (c) for a further artesian water supply of not less than 400,000 gals. per 24 hours in addition to existing supply and increase provided under (a): Ridpath & Potter Co., Philadelphia, Pa., (a) $18,000, (b) $4.50 per ft., (c) $25,000; Edw. Christman, Massillon, O., (a) $15,970, (b) (2 bids) $9,890 and $9,590, (c) $3,600.

Columbia, S. C.—Bids desired until Jan. 29 by City Commissioners for extensions to the water works, advertised in Engineering Record, to consist of approximately 10 miles of water mains, 6 to 12 in. F. C. Wyse, Engr. Supt.; E. M. Dupre, Council Supt.

Atlanta, Ga.—W. Zode Smith, Gen. Mgr., Water Comn., in his annual report, recommends an expenditure of $500,000 for 2 new city pumps.

Tarpon Springs, Fla.—Bids desired until Jan. 18 by A. F. Albaugh, President Council, for a 50-hp. Diesel engine and a 500-gal. triplex pump. The J. B. McCrary Co., Engrs., Third Natl. Bank Bldg., Atlanta, Ga.

Philadelphia, Miss.—T. L. Peebles, City Clk., writes an election will probably soon be held to vote $30,000 bonds for construction of water works.

Contracting News

Of Special Interest to Engineers, Contractors, Builders and Manufacturers of Engineering and Building Supplies

Louisville, Ky.—Plans reported completed by the Water Co. (W. O. Head, Pres.), for a 48-in. water main, to extend from river station to Crescent Hill Reservoir, about 2 miles in length; cost, about $175,000.

★**Cincinnati, O.**—Contract awarded Dec. 30 by Director Pub. Service for furnishing and delivering c.-i. pipe and special castings for water distribution system in Brotherton and Madison Roads, Brownway and Robertson Aves., to U. S. Cast Iron Pipe & Fdry. Co., Chicago, Ill., at $54,490.

Cleveland, O.—The water works improvement contemplated by the City Water Dept., not yet advertised, include the following: Superstructure for pumping station, estimated cost, $200,000; six 500-hp. boilers with necessary piping and auxiliaries, cost, $100,000; coal and ash conveyors and operating machinery, cost, $15,000; traveling cranes, cost, $10,000; stop valves and check valves for pumping station, cost, $48,000; c. i. pipe and special castings, cost, $200,000. This work will probably be contracted for during January and February. C. F. Schulz, Comr. Dept. Pub. Utilities, Div. of Water.

Coshocton, O.—The City Council has passed a resolution providing for the construction of a 3,000,000-gal. reinforced concrete reservoir, from plans of Chester & Fleming, of Pittsburgh, Pa.; cost about $53,000.

Lima, O.—Bids will probably be received in March for water works improvements, including 30,000 cu. yds. embankment, 16,000 sq. yds. riprap relaid, 6000 lin. ft. concrete curb around top embankment, 42,000 sq. ft. concrete slab work, 1000 cu. yds. concrete in breakwater and retaining wall, and 6 to 10 drilled wells, and pumping apparatus. C. H. Bryson, City Engr.; W. J. Sherman, Consulting Engr., Toledo.

★**Newark, O.**—Contract was awarded Dec. 29 by Director of Pub. Service to Thomson Meter Co., Brooklyn, N. Y., for approximately 500 ⅝-in. meters.

Kewanee, Ill.—City Comn. reported considering a bond issue to be used for pumping station improvements.

New Richmond, Wis.—Bonds in the sum of $12,000 reported sold for construction of water works.

★**Iowa Falls, Ia.**—Contract awarded Dec. 29 for constructing water works and sewer extensions to Moore & Moore, Inc., Waterloo, at $23,828. Next 3 lowest bids: Dearborn Constr. Co., Waterloo, $25,118; Zitteree & Sullivan, Webster City, $25,606; C. B. McNamara Co., Dubuque, $26,418. E. L. Marriage, City Mgr.

Mason City, Ia.—The city is reported to have in contemplation 16,000 ft. water main extensions, 41,000 ft. sewers and 80 blocks of paving.

Manhattan, Kan.—Worley & Black, of Kansas City, Mo., are preparing plans for water works, to cost about $50,000. Fred Walters, City Engr.

Broken Bow, Neb.—Chas. F. Sturtevant, of Holdrege, is reported to have prepared plans for water works and estimates the cost at $15,000.

Benton, Ark.—The Council will probably in January consider the question of calling an election to vote $80,000 bonds for the construction of water works and a sewer system. For further information address B. F. Henry, of Benton.

Gurdon, Ark.—Preliminary plans, estimates and reports on the proposed municipal water works, electric lighting plants and sewer system have been completed and presented to City Council; cost about $102,000. An election will soon be called to appropriate funds for the improvements. R. S. Stevens, Mayor; Albert C. Moore, Engr., Bartlett Bldg., Joplin, Mo.

★**Little Rock, Ark.**—Contract reported awarded to Crawford-Williamson Constr. Co., Memphis, Tenn., for superstructure of pumping station for the Arkansas Water Co.; cost about $20,000.

Montrose, Colo.—Bids desired until Jan. 14 by U. S. Reclamation Service, Montrose, for constructing approximately 1764 lin. ft. 17-in. diam. wood stave pipe for Uncompahgre Valley project, Colo. Alternative bids will be received for machine banded wood stave pipe made either of Douglas or California redwood.

Seattle, Wash.—Public Utilities Com. of City Council has approved a plan of L. B. Youngs, Supt. Water Dept., for laying steel mains in 13th Ave., from Denny Way to Volunteer Park by day labor; work will cost approximately $70,000.

At the spring election bonds in the sum of $500,000 for erection of schools and $1,890,000 for extensions to water works will be voted upon.

Walla Walla, Wash.—This city recently voted $80,000 bonds for construction of a concrete reservoir. Reported that work will begin early in spring.

Baker, Ore.—An election will probably soon be held to vote $180,000 bonds for extensions to water works. L. R. Stockman, City Engr.

★**Milwaukie, Ore.**—Contract awarded to Grebisch & Joplin, of Portland, for laying a water main to Portland, at $16,466.

Portland, Ore.—Council is reported to have authorized Water Commissioner Daly to enter into contract with city of Milwaukee to extend Bull Run water to that place. The pipe line will be extended from Mt. Tabor reservoirs to city limits of Milwaukee.

Glendora, Cal.—Bids reported desired until Jan. 18 by Bd. City Trus. for approximately 28,500 lin. ft. 8, 6 and 4-in. riveted steel pipe, No. 16 gauge; 31,500 lin. ft. 4 and 2-in. standard screw w.-i. pipe, black-dipped; 90 8 to 2-in. standard straightway gate valves; 12 4-in. double outlet fire hydrants, etc. F. G. Dessery, City Engr., Central Bldg., Los Angeles.

Bids desired same time and place as above for constructing municipal water works building.

Ottumwa, Ia.—Horace A. Brown, Supt. Water Wks., writes that the following are bids opened Dec. 18 for constructing one or two concrete dams (sand and gravel in river bottom ½ mile haul on cement): (a) J. W. Turner Improv. Co., Des Moines, Ia., $50,880; (b) W. B. Saunders, Minneapolis, Minn., $52,605; (c) A. J. Martin & Co., Augusta, Ga., $53,640; (d) Hannan, Hickey Bros. Constr. Co., St. Louis, Mo., $54,000; Middleton & Ludlow, Kansas City, Mo., $57,953; Inter-Mountain Bridge & Constr. Co., Tecumseh, Neb. $62,500.

Unit prices on a, b, c and d:	(a)	(b)	(c)	(d)
5,200 cu. yds. plain concrete	$5.65	$5.89	$5.50	$5.00
Removal of present West Dam, timber crib rock filled 350 ft. long (lump sum)	5,200.00	4,646.00	5,400.00	8,500.00
Removal of present East Dam, timber crib rock filled 350 ft. long (lump sum)	4,800.00	4,832.00	4,000.00	4,500.00
1,000 cu. yds. excav	1.25	1.25	.90	1.50
500 cu. yds. rock excav	2.50	2.60	4.00	3.00
All necessary cofferdams (lump sum)	9,000.00	9,922.00	13,000.00	12,000.00
5 tons placing steel, per ton	10.00	20.00	30.00	20.00

★*Items marked thus give the names of parties awarded contracts.*

Newark, N. J.—Following are the bids opened Jan. 5 by the Passaic Valley Sewerage Comrs. for Sect. 18, Central portion main intercepting sewer in the city of Paterson: (a) Mason, Hilton & Co., New York, $158,450; (b) N. Y. & N. J. Constr. Co., Newark, $166,570; (c) Harrison & Craig Co., Newark, $200,600; (d) Fusco Constr. Co., Newark, $220,440. (Not yet awarded.)

	(a)	(b)	(c)	(d)
5,000 lin. ft. earth excav. and refill, in trench, for 65-in. concrete sewer	$23.20	$26.00	$27.80	$37.00
9,000 cu. yds. rock excav.	1.00	.01	3.00	.01
3,800 cu. yds. concrete masonry, with Portland cement mortar	8.00	9.00	8.50	8.50
150 cu. yds. brick masonry and appurtenant work, in manholes, with Portland cement mortar	20.00	15.00	15.00	20.00
1,000 lbs. steel for concrete reinforcement	.05	.03	.05	.05

★**Newark, N. J.**—Following are the bids opened Dec. 29 by Passaic Valley Sewerage Comrs., Essex Bldg., Newark, for constructing main intercepting sewer in city of Paterson, Central portion of Sect. 17: (a) N. Y. & N. J. Constr. Co., Newark, $179,531; (b) Litchfield Constr. Co., Brooklyn, N. Y., $181,334; (c) Harrison & Craig Co., Newark, $199,364; (d) Merrill-Ruckgaber Co., New York, $201,184; Fusco Constr. Co., Newark, $202,441; Culp Co., Inc., Paterson, $222,116; Cauldwell-Wingate Co., New York, $236,983; Arthur McMullen, New York, $281,492. (Contract awarded Jan. 5 to N. Y. & N. J. Constr. Co.)

Unit prices of a, b, c and d:	*(a)	(b)	(c)	(d)
2,265 lin. ft. earth excav. and refill, in trench, for 69-in. concrete sewer	$21.00	$16.30	$26.00	$22.00
3,307 lin. ft. earth excav. and refill, in trench, for 65-in. concrete sewer	18.00	16.30	16.30	22.00
390 lin. ft. excav. in earth, rock or earth and rock together and refill, in tunnel, for 69-in. concrete sewer	60.00	47.00	32.00	50.00
11,000 cu. yds. rock excav., in trench	.01	2.50	2.75	1.50
4,200 cu. yds. concrete masonry, with Portland cement mortar, in trench	9.00	8.50	8.00	8.00
500 cu. yds. concrete masonry, with Portland cement mortar, in tunnel	12.00	10.00	10.50	9.00
130 cu. yds. brick masonry and appurtenant work, in manholes, with Portland cement mortar	20.00	15.00	15.00	15.00
1,000 lbs. steel for concrete reinforcement	.03	.03	.04	.05
1,000 long tons riprap, in place	2.50	2.00	3.00	2.50

Phoenix, Ariz.—Bids desired until Jan. 20 by W. A. Farish, City Mgr., for two motor driven centrifugal pumping units.

★**Montreal, Que.**—L. N. Senecal, Secy. Bd. City Comrs., writes under date of Jan. 4 that contract for work on Elgin basin pumping station has been awarded to Thos. Dwyer, Merchants Bank Bldg., Montreal, at $6,083.

North Battleford, Sask.—Plans being prepared for infiltration galleries to intake wells. J. B. Sterling, Comr. and Engr.

West Vancouver, B. C.—Bids reported opened by City Council Dec. 28 for waterworks extension: Ledingham & Cooper, $115,661; Pacific Bridge Co., $115,779; Cotton & Co., $112,354; W. Greenless, $124,354; McDougal & Co., $109,968; Naylor Bros., $138,554. F. Davies bid $64,483 for dam, trestle and trenching; and Vancouver Wood Pipe Co. bid $57,249 for the same work.

Panama.—See "Hydraulic Construction and Harbor Improvements."

SEWERAGE AND SEWAGE DISPOSAL.

Items Arranged Geographically

★**Westfield, Mass.**—Contract awarded Dec. 29 by Bd. Selectmen for furnishing about 10,000 lin. ft. 6 to 24-in. pipe to Cecil C. Gamwell, of Pittsfield. John L. Hyde, Town Engr.

Worcester, Mass.—City Council has passed a loan order of $35,000 for completion of outfall sewers. Mathew Gault, Supt. of Sewers.

Hartford, Conn.—The Street Bd. has recommended that citizens be asked to vote on appropriating $50,000 for extension to the Franklin Ave. sewer system.

Buffalo, N. Y.—Bids desired until Jan. 12 by Dept. Pub. Wks. for constructing 10 to 36-in. tile sewers in portions of Dutton Ave., Eckert, Evelyn and several other streets.

Mt. Vernon, N. Y.—Bids reported desired until Jan. 19 by Peter Collins, City Clk., for $15,000 sewerage bonds.

Jersey City, N. J.—Local press reports state that the State Bd. of Health has ordered this city to construct sewage disposal works, to intercept the sewage along western slope of Jersey City, and prevent further pollution of Hackensack River.

★**Philadelphia, Pa.**—Contract has been awarded by Bd. Pub. Wks. for reconstruction of Mantua Creek main sewer, to Jos. Jerna, 334 N. 65th St., at $12.40, (bids opened Dec. 15).

Columbia, S. C.—Bids desired until Jan. 29 by City Commissioners for extensions to the sewer system, advertised in Engineering Record, consisting of approximately 10 miles of 8 to 15-in. sewer mains. F. C. Wyse, Engr. Supt.; E. M. Dupre, Council Supt.

Birmingham, Ala.—Bd. City Comrs. has adopted ordinances for construction of sanitary sewers in vicinity of East Woodlawn and Gate City, approximately 5½ miles; estimated cost, $21,000; also for sanitary sewers in vicinity of Enon Ridge, approximately 4 miles; estimated cost, $12,000. Julian Kendrick, City Engr.

★**Canton, O.**—Z. W. Kent, Dir. of Pub. Service, writes contract was awarded on bids opened Nov. 11 for construction of main sewer to sewage disposal plant, in 3 sections, to J. F. Casey Co., Pittsburgh, Pa., on American Sewer Pipe Company's 39-in. segment block with concrete siphons, brick manholes and blowout chambers; a taxpayer's suit was started praying for an injunction claiming irregularities in the bidding, but was overruled in both Common Pleas and Circuit Courts.

Following are the unit prices of the J. F. Casey Co., the successful bidder: Sect. 1—10,932 lin. ft. 39-in. segment block sewer, $3.80; 200 lin. ft. 39-in. combination segment block and reinforced concrete gravel constr., $17.37, and 168 lin. ft., at $15.71; 239 lin. ft. for each vert. ft. of M. H. built with brick walls, $5.45; total cost 39-in. segment block gravel or stone, concrete, constr., $49,657.

Sect. 2—8900 lin. ft. 39-in. segment block sewer, $3.75; 179 lin. ft. vert. ft. of M. H. built, brick walls, $4.84; total cost 39-in. segment block, gravel or stone, concrete, constr., $52,511.

Sect. 3—6007.5 lin. ft. 39-in. segment block sewer, $4.34; 100 lin. ft. 39-in. com. segment block and reinforced concrete sewer, gravel, $18.53; 169 lin. ft. vertical ft. manholes, brick walls, $6.09; 2 constructing blowout chambers, brick, $61.74; 4000 lin. ft. 6-in. vitr. pipe subdrain, 20 cts.; excav. per cu. yd., $2; total cost 39-in. segment block sewer, gravel or stone constr., $73,812. W. E. Sarver, City Engr.

★**Indianapolis, Ind.**—Contract reported awarded to Geo. W. Schauer, for a sewer in Massachusetts Ave., Brightwood, with branches in Adams and Olney Sts. This sewer is to be completed by March 1.

Kalamazoo, Mich.—Bids desired until Jan. 11 by City Clerk for seasons supply of vitr. sewer pipe, advertised in Engineering Record.

Janesville, Wis.—Plans are being prepared for several miles of sewers. C. V. Kerch, City Engr.

Iowa Falls, Ia.—See "Water Works."

Mason City, Ia.—See "Water Works."

Gurdon, Ark.—See "Water Works."

Chelsea, Okla.—Citizens have voted $30,000 bonds, for construction of sanitary sewer system.

Pueblo, Colo.—See "Paving and Roads."

Anacortes, Wash.—City Council has passed a resolution providing for construction of lateral sewers in 12th and 13th Sts.

Portland, Ore.—The following are reported to be the two lowest bids opened Dec. 23 by City Council for construction of Willow St. and E. 82d St. trunk sewer: Guthrie, McDougall Co., $168,907 and Montague-O'Reilly Co., $169,687; both bid on vitr. reinforced concrete.

Local press reports state that City Council on Dec. 30 again rejected bids recently received for the construction of the Willows St. extension to the E. Stark St. trunk sewer: the new bids will call for monolithic construction; cost about $173,083.

Ottawa, Ont.—Citizens Jan. 4 voted $260,000 bonds for constructing the Ottawa South intercepting sewer.

BRIDGES.

Items Arranged Geographically

★**Boston, Mass.**—Contract for building draw fender pier, fender guard and wharf at Broadway Bridge, over Ft. Point Channel, awarded by Public Works Dept. and Mayor to W. H. Ellis & Son Co., East Boston, at $13,829.

Woonsocket, R. I.—See "Paving and Roadmaking."

Ballston Spa, N. Y.—Citizens Dec. 26 voted $7,000 bonds for the construction of a bridge at Morning Kill. Engineer, John Hodgman, of Saratoga Springs.

Cobleskill, N. Y.—Ogden Eldredge, Town Clk., writes citizens voted Dec. 28 to erect bridge over Cobleskill River. This will be under supervision of State Engineer, at Albany.

Ellenville, N. Y.—Bids desired until Jan. 16 by Town Bd. of Warwarsing, at Ellenville, for constructing steel highway bridge, span 197 ft., across Roundout Creek, settlement of Warwarsing. J. F. Loughran, Co. Supt. Highways, 74 John St., Roundout.

Watertown, N. Y.—City Engineer estimates cost of constructing bridge at Court St. at $40,000.

★**Atlantic City, N. J.**—Bids were opened Dec. 30 by County Bd. Chosen Freeholders, Atlantic City, for constructing 4 bridges on Somers Point, Longport Rd., and contracts have been awarded as follows; To J. W. Ingersoll, Atlantic City, for 3 of the bridges, Bass Harbor Bridge 318 ft. long, at $16,906; Broad Thorofare Bridge, 340 ft. long, at $77,932; Risley's Channel Bridge, 1076 ft. long, at $73,243; and to Edw. Fay & Son, 2 S. Mole St., Philadelphia, Pa., Hospitality Creek Bridge, 386 ft. long, at $22,900.

Mt. Holley, N. J.—See "Paving and Roads."

Washington, D. C.—Lindley M. Garrison, Secretary of War, is reported to have approved of constructing bridge over Potomac River to replace Aqueduct Bridge, at a cost of $1,500,000.

Norfolk, Va.—The House of Representatives at Washington, D. C., passed bill granting Norfolk & Berkeley Bridge Cor. permission to build bridge across Eastern Branch of Elizabeth River.

Rome, Ga.—Bd. County Comrs., Floyd County, have selected Spiker & Greiner, Atlanta, to prepare plans for 3 concrete bridges to be constructed over rivers in Rome; cost about $150,000.

★**Jacksonville, Fla.**—Contract for constructing Duval St. Viaduct awarded by Seaboard Air Line Ry. and St. Johns River Terminal Co. to Hillyer & Sperring Co., Jacksonville, at $120,000. Structure to be 800 ft. long with two approaches 500 ft. long.

★**Alabama**—Contract was awarded Dec. 29 by State Highway Dept., Montgomery, to J. H. Scruggs and C. E. Ard, Birmingham, for constructing state aid reinforced concrete bridge over Barbaur Creek near Eufaula, at $6,000. This bridge consists of 5 girder spans, total length, 216 ft.; height of piers under main span, 40 ft.; roadway, 18 ft., 500 cu. yds. concrete.

Nashville, Tenn.—Plans for altering Church St. Viaduct and extending it easterly and westerly to 9th Ave. and 13th Ave. respectively have been adopted. Nashville Terminals and Nashville Ry. & Light Co. and city will share expense of cost, estimated about $90,000.

Toledo, O.—See "Paving and Roadmaking."

Youngstown, O.—See "Railroads."

Laporte, Ind.—Bids reported desired until Jan. 15 by County Comrs. for constructing 10 steel bridges, 24 to 46-ft. span, concrete abutments and creosoted block floor. F. A. Hausheer, Co. Aud.

Rock Island, Ill.—E. D. Fisher, Secy. Bd. County Superv., writes bids will be called for about Feb. 1 for the purchase of $30,000 bridge bonds.

Milwaukee, Wis.—See "Railroads."

★**Bemidji, Minn.**—Contract for constructing 183 culverts on Judicial Ditch No. 21 has been awarded to Klauer Mfg. Co., of Dubuque; J. L. George, Co. Aud.

Ayr, Neb.—County Comrs. at Hastings have voted to construct bridge 250 ft. long over Blue River south of Ayr.

Wayne, Neb.—Bids desired until Jan. 19 at County Clerk's office for furnishing steel or corrugated culverts for county for year 1915. Bids desired for 18, 24, 30, 36, 42, 48 and 60-in. culverts.

Pueblo, Colo.—Bids desired by D. P. Gaynon, City Engr., until Jan. 18 for constructing steel bridge at E. 1st St. to have two 50-ft. spans, width 45 ft., on caisson foundation; cost $4,000.

★**Tulsa, Okla.**—Contract awarded by Bd. of Comrs. of Tulsa County to the Oregonia Bridge Co., Oklahoma City, for construction of 2 steel bridges; both to have concrete floors.

Chehalis, Wash.—Bids will be opened Feb. 3 by County Commissioners for constructing 3 steel bridges.

Seattle, Wash.—Plans have been completed by A. H. Dimock, City Engineer, for constructing approaches to 15th Ave. Bridge N. W. over Lake Washington Canal. Bids for construction will be received about Feb. 5; estimated cost $95,000.

Seattle, Wash.—See "Paving and Roadmaking."

Spokane, Wash.—Construction of concrete bridge at Nine Mile over Spokane River is contemplated by Bd. County Comrs.

Portland, Ore.—It is reported that the Southern Pacific Ry. Co. (F. L. Burckhatter, Div. Supt., Portland) will construct viaduct on Holgate Ave. to have 4 steel spans of 75 ft. each, of through girder type with earth approaches; estimated cost $55,000.

Harrington, Howard & Ash, of Kansas City, Mo., are completing plans for the proposed interstate bridge to be constructed over Columbia River between Vancouver, Wash., and Portland, Ore., and contract for construction will probably be let some time in February by the Co. Comrs.; cost to be $1,750,000.

Colusa, Cal.—About $150,000 bonds have been sold by County Supervisors for constructing county bridges.

London, Ont.—Citizens voted to issue $40,000 bonds for constructing bridge over River Thames at Richmond St.

★**St. Catharines, Ont.**—W. P. Near, City Engr., writes following are totals of all bids opened Dec. 8 for constructing steel viaduct known as St. Paul St. High Level Bridge: Canadian Bridge Co., Walkerville, $91,420 (awarded contract); Hamilton Bridge Wks., Hamilton, $97,425; Dominion Bridge Co., Montreal, Que., $101,829; McGregor & McIntyre, Toronto, $112,012; Canadian Allis-Chalmers Co., Toronto, $122,448; Standard Steel Constr. Co., Welland, $133,360.

★**Santo Domingo, Dominican Republic.**—Contract has been awarded by A. J. Collett, Dir. General Public Wks., Santo Domingo, for constructing a steel highway bridge across Ozama River at Santo Domingo City, from plans of Strauss Bascule Bridge Co., Chicago, Ill., to Jose Turull, Santo Domingo City, at $91,236 (bids opened Oct. 15).

PAVING AND ROADS.

Items Arranged Geographically

Providence, R. I.—Bids were opened Dec. 28 by Bd. Contract & Supply (W. C. Pelkey, Clk.) for paving Broad, Messer and Knight St. as follows:

Asphalt Paving—(a) Broad St., (b) Messer St., (c) Knight St.: Narragansett Improvement Co., (a) $111,373, (b) $18,655, (c) $14,712; Borough Asphalt Co., (a) $119,979, (b) $19,259, (c) $15,242; Danl. O'Connell Sons, (a) $138,149, (b) $22,685, (c) $17,897.

Unit prices of Narragansett Improv. Co., on asphalt paving, as follows: **Broad St.,** 8980 sq. yds. pavt. removed, 15 cts.; 56,190 sq. yds. concrete laid, 75 cts.; 4050 sq. yds. wooden blocks laid, $2.60; 52,140 sq. yds. sheet asphalt, $1.10. **Messer St.,** 2320 sq. yds. pavement, 20 cts.; 9321 sq. yds. concrete laid, 80 cts.; 11 sq. yds. wooden blocks laid, $2.60; 9310 sq. yds. sheet asphalt, $1.15. **Knight St.,** 2385 sq. yds. pavt. removed, 20 cts.; 7300 sq. yds. concrete laid, 80 cts.; 7300 sq. yds. sheet asphalt, $1.15.

Bitulithic Pavement—(a) Broad St., (b) Messer St., (c) Knight St.: Warren Bros. Co., (a) $118.892, (b) $19.631, (c) $15,568; Borough Asphalt Co., (a) $118,937, (b) $19,073, (c) $15,096.

Unit prices of lowest bidder, Warren Bros. Co., as follows: **Broad St.,** 8980 sq. yds. pavt. removed, 10 cts.; 56,190 sq. yds. concrete laid, 60 cts.; 52,140 sq. yds. bitulithic wearing surface, $1.43; 4050 sq. yds. wooden blocks laid, $2.40. **Messer St.,** 2320 sq. yds. pavt. removed, 10 cts.; 9231 sq. yds. concrete laid, 62 cts.; 9310 sq. yds. bitulithic wearing surface, $1.46; 11 sq. yds. wooden blocks laid, $2.50. **Knight St.,** 2385 sq. yds. pavt. removed, 10 cts.; 7300 sq. yds. concrete laid, 64 cts.; 7300 sq. yds. bitulithic wearing surface, $1.46.

Woonsocket, R. I.—Bd. Aldermen voted an appropriation of $75,000 for widening Hamlet Ave. and replacing 2 wooden bridges with concrete bridges.

Aldermanic Com. on Streets and Bridges rejected all bids opened Dec. 21 for paving with granite block Pond St. According to reports new bids will be received.

Albany, N. Y.—Following are 4 lowest bids opened Jan. 5 by the State Highway Comn., 55 Lancaster St., Albany, N. Y., for the construction of public highways by State aid:

Road 5543 Hinsdale-Franklinville, Part 1, Cattaraugus Co., 6.95 miles: Lyman H. Bevans, Albany, $128,431; Thos. F. Shaughnessy, Albany, $129,076; Jas. Rossney, Buffalo, $130,162; Lake Shore Constr. Co., Dunkirk, $131,784.

Road 1170 Yorkshire Hamlet-Main St., Cattaraugus Co., .44 miles: Jas. Rossney, Buffalo, $5,845; Frank M. Foote, Arcade, $5,876; E. H. Brown, Hempstead, $6,106; Lake Shore Constr. & Supply Co., Dunkirk, $6,122.

Road 5525 King Ferry-Poplar Ridge, Cayuga Co., 4.58 miles: John H. Gordon, Albany, $53,248; P. H. Murray, Rochester, $53,832; Levison Wrecking Co., Hoboken, N. J., $53,924; Flood & Van Wirt Co., Hudson Falls, $54,080.

Road 5527 Grand Gorge—Green County Line, Delaware Co., 5.90 miles: Schunnemunk Constr. Co., Highland Mills, $45,291; St. Lawrence Constr. Co., Menands, $46,147; S. V. Van Wagonen, Inc., Rondout, $46,666; De Graf & Hogeboom, Inc., Kingston, $47,714.

Road 5541 Schroon Lake-Ticonderoga, Part 1, Essex Co., 5.98 miles: Keeseville Road Co., Keeseville, $54,693; Wm. G. Fox, Saratoga Springs, $55,373; Jas. Anderson, Menands, $58,164.

Road 5540 Jay-Lake Placid, Part 1, Essex Co., 10.15 miles: Keeseville Road Co., Keeseville, $92,249; Bluff Point Stone Co., Plattsburgh, $94,339; J. A. Culkin, Oswego, $96,145; Jas. Anderson, Menands, $96,225.

Road 1222 Saranac Lake Village, B'way and River St., Franklin Co., .22 miles: John B. Dower, Ballston Spa, $3,613; R. B. Kennedy, Utica, $3,813; Rumpf & Stevens, Lake Placid, $3,822; Beede Bros., Keene Valley, $3,932.

★*Items marked thus give the names of parties awarded contracts.*

Road 1054 Alden Darien Center, Genesee Co., 3.88 miles: E. H. Brown, Hempstead, $38,812; Lyden Contr. Cor., Albany, $38,919; Jas. Rossney, Buffalo, $39,052; Atlanta Constr. Co., Atlanta, $39,345.

Road 5538 Le Roy-Pavilion, Genesee Co., 2.84 miles: Chilson & Gibson, Buffalo, $26,939; Michael L. Ryan, Cortland, $27,524; Thos. F. Murray, Le Roy, $27,-991; E. H. Brown, Hempstead, $28,093.

Road 766-767 Pittsford-Palmyra, Parts 1 and 2, Monroe Co., 7.12 miles: Newport Constr. Co., Herkimer, $76,260; E. H. Brown, Hempstead, $76,436; I. M. Ludington Sons, Inc., Rochester, $77,410; Ribstine-Holter Co., Rochester, $78,513.

Road 1221 Carmel-Mohopac, Putnam Co., 2.55 miles: Amos. D. Bridges Sons, Hazardville, $37,097; John L. Hayes, Yonkers, $38,156; St. Lawrence Constr. Co., Albany, $38,409; De Graff & Hogeboom, Inc., Kingston, $38,554.

Road 5536 Waddington-Massena, Part 2, St. Lawrence Co., 8.35 miles: H. P. Burgard, Fulton, $104,843; Jas. Anderson, Menands, $107,204; Frank E. Gore, New York, $108,146; R. B. Kennedy, Utica, $109,245.

Road 5534 Ballston Spa-Scotch Church, Part 1, Saratoga Co., 4.95 miles: Pehlan & Sullivan, Utica, $52,528; John B. Dower, Ballston Spa, $53,430; J. P. Scanlon Constr. Co., Albany, $54,244; S. B. Van Wagonen, Rondout, $56,344.

Road 5542 Ballston Spa-Scotch Church, Part 2, Saratoga Co., 4.55 miles: Wm. G. Fox, Saratoga, $39,656; Amos D. Bridges Sons, Inc., Hazardville, Conn., $40,538; Phelan & Sullivan, Utica, $40,925; De Graffe & Hogeboom, Inc., Kingston, $41,463.

Road 986 Fosterdale-Mongaup Valley, Sullivan Co., 10.97 miles: Fulton Eng. Co., Inc., Albany, $103,314; Wm. A. Martin, Poughkeepsie, $108,394; C. W. Tryon, Boyntonville, $109,824; A. Vito Constr. Co., Thompson, Conn., $112,117.

Road 5508 Old Post, Part 4, Ulster Co., 6.50 miles: Ruddy Saunders Constr. Co., Troy, $89,821; Blankfield & Donovan, Kingston, $94,003; S. B. Van Wagonen, Rondout, $94,997; Levenson Wrecking Co., Hoboken, N. J., $95,416.

Road 1224 Comstock-Fort Ann, Washington Co., 5.33 miles; Wm. G. Fox, Saratoga Springs, $39,941; Amos D. Bridges Sons, Inc., Hazardville, Conn., $44,279; Brady & Oltarsh Constr. Co., Inc., New York, $44,469; Wm. S. McLachlin, White Hall, $45,184.

Bolivar, N. Y.—The citizens voted to pave about 1½ miles streets; cost about $30,000.

Buffalo, N. Y.—Common Council voted to pave Beatrice and Henrietta Sts. with asphalt; cost about $35,000.

★**Long Island City, L. I., N. Y.**—Contracts for paving awarded by Borough President for paving as follows: Repaving roadway and constructing pile and timber bulkheads in Rockaway turnpike from New York Ave. to Hook Creek, South Jamaica, to Public Work Contr. Co., Long Island City, at $12,130; grading, curbing and laying sidewalks in Hancock St., Long Island City, to J. Di Nienna, at $10,543.

New York, N. Y.—Bids were opened Dec. 23 at the office of the President Bronx Boro. for street improvements as follows:

Regulating, grading, etc., Wallace Ave., from N. H. & H. R. R. to Bronxdale Ave.—Lowest bidder: Burnside Contr. Co., 270 Burnside Ave., as follows: 2300 cu. yds. earth excav., 15 cts.; 200 cu. yds. rock excav., $1; 17,000 cu. yds. fill, 35 cts.; 4500 lin. ft. new curb, 90 cts.; 22,320 sq. ft. concrete sidewalk, 16 cts.; 1150 sq. ft. bridgestone, 50 cts.; 1400 cu. yds. dry rubble masonry, $1.50; 25 cu. yds. rubble masonry in mortar, $3; 25 cu. yds. concrete, Class A, $8; 350 lin. ft. vitr. pipe, 12 in. diam., $1; 325 lbs. structural steel, 5 cts.; 1650 lbs. steel reinforcing bars, 3 cts.; 25 sq. ft. woven wire reinforcement, 5 cts.; 2 type B inlets, $50; 3 manholes, $50; 10 cu. yds. brick masonry, $10; total, $17,833. Other bids: Pheon Contr. Co., $23,293; J. B. Malatesta, $20,-438; Harris Rose Constr. Co., $24,422.

Regulating, grading, etc., Melville St., from West Farms Road to Morris Park Ave.—Lowest bidder: Burnside Contr. Co., as follows: 550 cu. yds. earth excav., 50 cts.; 750 cu. yds. rock excav., $1.50; 5700 cu. yds. fill, 25 cts.; 2200 lin. ft. new curb, 80 cts.; 9150 sq. ft. concrete sidewalk, 18 cts.; 475 cu. yds. dry rubble masonry, $1.50; 10 cu. yds. brick masonry, $10; total, $7,044.

Regulating, grading, etc., Allerton Ave., Bronx Park E. to White Plains Road.—Lowest bidder: Nicholas DiMenna, as follows: 550 cu. yds. earth excav., 20 cts.; 1150 cu. yds. rock excav., $1.60; 14,450 cu. yds. fill, 38 cts.; 1400 lin. ft. new curb, 80 cts.; 6960 sq. ft. concrete sidewalk (one course), 17 cts.; 460 sq. ft. bridgestone, 50 cts.; 80 cu. yds. dry rubble masonry, $2; 10 cu. yds. rubble masonry in mortar, $5; 75 lin. ft. vitr. pipe 18 in. diam., $1; 3 M ft. timber, $10; 500 lin. ft. new guard rail, 30 cts.; total, $10,439. Nex 3 lowest bids: Handy Bros., $10,529; American Real Estate Co., $10,532; Spedaro Contr. Co., $11,927.

Regulating, grading, etc., Van Buren St. from West Farms Road to Morris Park Ave.—Lowest bidder: I. F. Cavalluzza, at $5,106.

Regulating, grading, etc., Merrill St. from Rosedale Ave. to Beach Ave.—Lowest bidder: Nicholas Di Menna, at $5,566.

Regulating, grading, etc., Fillmore St., Morris Park Ave. to Van Nest Ave.—Lowest bidder: Burnside Contr. Co., at $5,741.

Regulating, grading, etc., Adams St., Morris Park Ave., to N. Y., N. H. & H. R. R.—Lowest bidder: Nicholas Di Menna, as follows: 2760 cu. yds. earth excav., $1; 6450 cu. yds. rock excav., $1; 13,120 cu. yds. fill, 6 cts.; 1700 lin. ft. new curb, 60 cts.; 2450 sq. ft. new bluestone flag, 24 cts.; 5580 sq. ft. concrete sidewalk, 12 cts.; 320 sq. ft. new bridgestone, 10 cts.; 2400 cu. yds. dry rubble masonry, $1.70; 55 cu. yds. Class A concrete, $10; 225 cu. yds. Class B concrete, $1; 25 lin. ft. vitr. pipe, 12-in., 1 ct.; 1M. ft. timber, $1; 400 lin. ft. guard rail, 20 cts.; 4500 lbs. steel reinforcing bars, 3 cts.; 38 cu. yds. brick masonry, $10; total, $17,758. Next 3 lowest bids: M. Di Menna Constr. Co., $18,-851; P. Di Menna Contr. Co., $19,396; J. B. Malatesta, $20,777.

★Bids desired until Jan. 13 by Pres. Boro. Bronx, for paving, etc., portions of 15th Ave., E. 15th, West, 71st and several other streets, in all 41,250 sq. yds. asphalt pavement (5 years' maintenance), etc.

Syracuse, N. Y.—Lowest bid opened for paving N. Crouse Ave. and N. Beech St. submitted by Guy B. Dickinson, Kirk Bldg., with sandstone, $35,296, and with brick, $27,633.

★**Yonkers, N. Y.**—Contract has been awarded to Warren Bros., Boston, Mass., for paving Lawrence St., at $15,918.

Haddonfield, N. J.—King's Highway is to be paved in spring at cost of about $45,000.

Mt. Holly, N. J.—The Burlington County Board Freeholders, at a recent Organization Meeting, adopted budget containing $75,000 for road maintenance and $35,000 to build and repair bridges. Jas. Logan, Co. Engs.

Greensburg, Pa.—Bids reported desired until Jan. 11 by John S. Sell, County Controller, for $250,000 road bonds.

Philadelphia, Pa.—Following are lowest bids opened Dec. 28 by Dept. of Pub. Works, Bureau of Highways (Wm. H. Connell, Ch.): Asphalt pavt., including 6-in. concrete base, Barber Asphalt Paving Co., Land Title Bldg., average price $1.625 per sq. yd.; total $48,393; and vitr. block pavt., including 6-in. concrete base, Estate of D. McMahon, P. O. Bldg., Germantown, average price $2.506 per sq. yd.; total $11,858.

Wilkes-Barre, Pa.—City Council voted to pave Jones, Dana, Lincoln, Beaumont and Hollenbeck Sts.

Council is considering an ordinance providing for grading, curbing and paving of Kinney, Church, Maple, Hancock and Charles Sts. and Emily Court.

★**Baltimore, Md.**—Contract for paving with sheet asphalt .61 mile on Cathedral St., awarded by State Roads Comn. Dec. 29 to American Paving & Constr. Co., Philadelphia, Pa., at $22,778.

Among improvements contemplated by Paving Comn. during present year is paving with sheet asphalt and granite blocks between car tracks of Eastern and Patterson Park Aves.

Maryland.—Bids desired until Jan. 19 by State Roads Comn., Baltimore, for constructing State highways as follows:

Contr. G-8—Garrett County, macadam or concrete road through Grantsville, .85 miles.

Contr. P-13—Prince Georges County, macadam or concrete road, Meadows to Camp Springs, 3.03 miles.

Contr. P-14—Macadam or concrete road from Upper Marlboro to Hills Bridge, 2.45 miles.

Contr. Q-12—Queen Anne's County, macadam or concrete road, town of Churchill, .65 miles.

Contr. S. M.-9—St. Mary's County, from Ridge to Confederate Monument, 3.58 miles 4-in. gravel surfacing.

Alexandria, Va.—Bids desired until Jan. 22 by Chairman Bd. Awards, at the office of the Chief Clerk, Public Roads, U. S. Dept. of Agriculture, Washington, D. C., for constructing an experimental road on Mount Vernon Ave., in Alexandria County, Va., from the Military Road near Arlington Cemetery, approx. 4.5 miles to the corporate limits of the city of Alexandria. Approx. 29,000 cu. yds. excav., 7,050 cu. yds. gravel base and 42,000 sq. yds. of bituminous surfacing.

Richmond, Va.—Local press reports state bids desired by State Highway Comn., Richmond, for improving Broad St. road, commencing at city limits.

Aiken, S. C.—Lowest bid opened by County Comrs. Dec. 18 for constructing post road in Aiken County submitted by Holley & Dyches, Aiken, at $11,500.

★**Tampa, Fla.**—Contracts for paving 2-mile road with brick between Knight's Station and Plant City awarded by County Comrs. to Southern Paving & Constr. Co., Chattanooga, Tenn., at $37,750.

Tavares, Fla.—H. H. Duncan, Clerk County Comrs., writes that bids received Dec. 31 for furnishing material and constructing a system of roadways in this county were returned to bidders unopened; new bids will be called for in about 60 days. Work will require approximately 144,793 cu. yds. excav., 329,630 cu. yds. fill, 184,837 cu. yds. excess fill, over excav.; 1,147,610 sq. yds. pavt., 57 bridges to be raised, etc. The J. B. McCrary Co., Engrs., 3d Natl. Bank Bldg., Atlanta, Ga.

Effingham, Ala.—Citizens Effingham and Douglas Township voted $15,000 bonds to construct roads in Douglas Township.

Vernon, Ala.—Citizens voted Lamar County $75,000 bonds for constructing roads.

Harrisburg, Miss.—Bids reported desired until Jan. 21 by Epley Constr. Co. for $100,000 sidewalk improvement bonds.

Louisiana—Bids desired until Jan. 30 at office of State Highway Dept., New Orleans Court Bldg. (Frank M. Kerr, Ch. Engr.), New Orleans, for constructing with gravel highways in Road Dist. No. 2, East Baton Rouge Parish, a distance of about 27 miles.

Johnson City, Tenn.—The 6th Road Dist. of Tennessee has elected its road commissioner and is now circulating petitions for a bond issue of $300,000 for good roads. The district comprises Johnson City and several civil districts. The bonds will be issued in March.

Bowling Green, Ky.—M. H. Crump, County Road Engr., writes this county desires bids on one 10-ton gasoline or oil road roller and one 60-40-hp. caterpillar tractor.

★**Louisville, Ky.**—Contract for improving Market St. awarded by Bd. Public Wks. to Frank G. Breslin at $76,000. Street between car tracks and for distance 2 feet on either side is to be granite block, shoulders of street is to be bituminous concrete and gutters of brick.

Mt. Gilead, O.—Bids desired until Jan. 29 by County Comrs. for constructing Mosier-Gruber Rd., Canan Township, about 2 miles in length; also Hunter Rd. improvement, .75 mile in length. C. O. Higgins, Co. Aud.

Toledo, O.—Fassett St. Bridge is to be paved with wood block by city at a cost of $45,000.

Crown Point, Ind.—Bids reported desired until Jan. 11 by A. J. Swanson, Co. Treas., for $29,500 highway bonds.

Lawrenceburg, Ind.—About $38,000 bonds have been sold for constructing 3 miles pike in Lawrenceburg Township.

New Albany, Ind.—Bids reported desired until Jan. 28 by Bd. Pub. Wks., for paving with macadam Galt St., from Main to Dewey Sts.

South Bend, Ind.—Bids reported desired until Jan. 13 by F. Martin, Co. Treas., for $21,500 road improvement bonds.

★**Vincennes, Ind.**—Contract for 29,000 sq. yds. asphalt pavement on 4th St., awarded by City to Premier Constr. Co., Indianapolis, at $52,079.

Flint, Mich.—Bids desired until Jan. 27 for approximately 110,000 sq. yds. of pavements. The specifications include brick, sheet asphalt, asphalt block, bitulithic and creosoted wood block. Ezra C. Shoecraft, City Engr.

Belleville, Ill.—City Council voted to pave rock road to Edgemont, about 6 miles.

Moline, Ill.—Council has passed ordinances for paving as follows: 4th St. Dist., brick 9610 sq. yds., alley bet. 22d St. and 23d St., brick 415 sq. yds., and 8th St. from 12th Ave. south, 260 ft., concrete 936 sq. yds.

Clarinda, Ia.—T. A. Wilson, City Business Mgr., writes bids will probably be received about Mar. 15 for paving Chestnut, Grant and Water Sts., about 27,000 sq. yds., with concrete or asphalt concrete and 19,794 lin. ft. concrete curb. Engineer M. G. Hall, of Centerville.

Mason City, Ia.—See "Water Works."

Ottumwa, Ia.—John T. Brady, City Engineer, writes bids will be opened Jan. 18 for the proposed paving, to include resurfacing with brick 27,142 sq. yds. one course, Portland cement fill, on foundation between curb, and 13,342 sq. yds. brick one course cement fill on 6 in Portland cement concrete, also 8,675 lin. ft. Portland cement curb 6 x 20 in. and 1,988 lin. ft. 4 x 12 in. alley curb.

Kansas City, Kan.—Wm. Barclay, City Engr., writes bids will not be received for several months for 17,000 sq. yds. rock asphalt pavement.

St. Louis, Mo.—We are informed by the Bd. Public Improv. that the Central Parkway ordinance will not be effective for some time; it will probably take 2 years for the condemnation proceedings.

Beaumont, Tex.—County Comrs. voted to issue $200,000 road bonds.

Belton, Tex.—Bids reported desired until Jan. 13 by Co. Comrs. for constructing about 40 miles gravel road in Dist. No. 7. W. S. Shipp, Co. Judge.

Houston, Tex.—Contract about to be let for constructing Main St. Boule to Rice Inst.; cost about $300,000. H. F. MacGregor and R. A. Welch said to be interested.

Lavernia, Tex.—Citizens have voted to issue $48,000 bonds for constructing roads in Lavernia and Sutherland Dists.

Mission, Tex.—Contracts about to be let for about 18,000 lin. ft. cement sidewalks.

Pueblo, Colo.—D. P. Gaymon, City Engr., writes this city is about to improve Mineral Palace Paving Dist.; work to include a sewer to cost $50,000; gravel macadam paving, $57,000; curb and gutter, $63,000, and excavation, $15,000.

Chehalis, Wash.—Bids desired until Feb. 1 by County Commissioners for constructing one mile concrete highway to cost $15,000, and about one mile road to cost about $17,000.

Olympia, Wash.—It is reported that plans for improvements of state highways in 1915 call for an expenditure of about $2,000,000. Wm. R. Roy, Ch. Engr.

Seattle, Wash.—Plans submitted to Bd. Pub. Wks. by City Engineer for brick paving on Utah St., cost $297,896; grading and curbing 44th Ave., cost $22,251; grading and curbing 32d Ave. N., cost about $13,000.

★Contract awarded by County Comrs. Dec. 29 for grading, graveling and building wooden bridge on 14th Ave. South to W. W. Wilcox, Seattle, at $30,300.

★**Westport, Wash.**—Contract awarded by City Council for constructing concrete pavements on number streets in business section of city to Christensen & Pugh, Hoquiam, at $9,153.

Eureka, Cal.—Bids reported desired until Jan. 12 by Co. Bd. Superv. (Geo. W. Cousins, Clk.) for $150,000 highway bonds.

★**Los Angeles, Cal.**—Contracts for paving awarded as follows: 214,963 sq. ft. asphalt pavement on Vermont Ave. between Alameda and Main St. and 219,756 sq. ft. on Vernon Ave. to Geo. H. Oswald, O. T. Johnson Bldg., at $38,017 and $48,525 respectively, for 106,100 sq. ft. asphalt pavements on Wilhardt St., to Fairchild-Gilmore-Wilton Co., Pacific Electric Bldg., at $28,209, and 565,650 sq. ft. asphalt pavement on Vermont Ave. between Melrose and Los Feliz Ave. to Bryant & Austin, 1656 Compton Ave., at $127,764.

Lowest bid opened for macadam pavement on Pass Ave. submitted by Chas. T. Salata, 1544 3d St., Santa Monica, at $23,455.

★Contract has been awarded by Bd. Pub. Wks. (Horace B. Ferris, Secy.), for furnishing machinery for Municipal asphalt paving plant to Baker Iron Wks., of Los Angeles, at $6,749.

Oakland, Cal.—City Council approved plans and specifications for improving 35th Ave. and 8th St.

★**Riverside, Cal.**—Contract for 20,000 lin. ft. concrete pavements on Route 3, Corona to San Bernardino county line, awarded to Oscar Ford, Riverside, at $18,471.

★**San Francisco, Cal.**—Contract for improving San Bruno Ave. from Steuben St. to Oakdale, awarded by Bd. Wks. to Federal Constr. Co., San Francisco, at $38,658.

Tulare, Cal.—Lowest bid opened for about 17 blocks asphalt pavement submitted by Federal Constr. Co., San Francisco, at $90,494.

Yuba City, Cal.—About $110,000 bonds have been sold for constructing state highway between Yuba City and Butte County line.

STREET CLEANING AND GARBAGE DISPOSAL.

Items Arranged Geographically

Miami, Fla.—City Council reported to have decided to construct garbage disposal plant, from plans of John R. Bailey; cost about $16,000.

Lansing, Mich.—Bids reported desired until Jan. 16 by John McClellan, City Clk., for disposal of city's garbage.

Independence, Kan.—C. H. Kerr, Mayor, writes that the proposed garbage crematory will cost $5,000. No plans yet prepared.

St. Louis, Mo.—Bids reported desired until Jan. 19 by Bd. Pub. Service, for sprinkling streets of city for year 1915. The streets are divided into 40 districts. Total probable cost $350,000.

★**Berlin, Ont.**—A. H. Miller, City Clk., writes that contract has been awarded to the Ideal Incinerator Co., Toronto, for construction of an incinerator; cost reported to be $14,000.

Toronto, Ont.—Bids desired until Feb. 16 by Chairman Bd. Control for furnishing and installing furnaces and appurtenances for refuse incinerating plant, advertised in Engineering Record.

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Items Arranged Geographically

★**Pier—New Bedford, Mass.**—Jas. J. Canter, Asst. Engr., Bd. of Harbor and Land Comrs., Boston, writes that contract for constructing 2-story steel and concrete shed on a solid fill pier at New Bedford has been awarded to Wm. H. Ellis & Son Co., Boston.

★*Items marked thus give the names of parties awarded contracts.*

Dredging—Salem, Mass.—Bids were opened Dec. 30 by Lieut.-Col. W. E. Craighill, Corps Engrs., U. S. A., Boston, for dredging in Salem Harbor, Mass., as follows: (Price per cu. yd. scow meas.): Bay State Dredging Co., Ltd., 247 Atlantic Ave., Boston, 38 cts.; Eastern Dredging Co., 172 Condor St., East Boston, 39 cts.; John H. Gerrish, 101 Tremont St., Boston, 44.5 cts.

State Terminal—Albany, N. Y.—Bids were opened by State Supt. Pub. Wks. Dec. 22 for Terminal Contract 13, constructing a guard lock, highway bridge and cut-off dam at Schuylerville, and 17 bids were received ranging from $42,742 to $60,627. Four lowest bidders: Lou B. Cleveland, Watertown, $42,742; Gruner & Hallenbeck, Harriman, $48,239; W. F. Shields, Albany, $48,561; George Holler, Albany, $50,311. Engineer's estimate, $61,664.

River Improvement—Albany, N. Y.—The Common Council has passed ordinance authorizing a bond issue of $175,000 for constructing plaza at foot of State St. in connection with river front improvement work.

State Canal Work, Contract 28—Albany, N. Y.—Bids desired until Feb. 2 by State Supt. Pub. Wks., Albany, for Terminal Contract 28, constructing a harbor, dock-wall and 2 breakwaters on Oneida Lake, at Cleveland, N. Y., advertised in Engineering Record.

Canal Terminals—Long Island City, L. I., N. Y.—The State Canal Bd. at Albany has authorized selection of sites for 3 barge canal terminals in Queens Boro. as follows: One will be on East River, just north of Queensboro Bridge; one on Hallet's Cove at foot of Bway., Astoria, and the third will be on Flushing Bay, just west of Flushing Creek.

Dredging—New York, N. Y.—Bids desired until Jan. 18 by Commissioner Docks for Contr. 1443—Furnishing and dredging in Boroughs Manhattan, Brooklyn, Bronx, Queens and Richmond, about 330,000 cu. yds. dredging. Total security $23,000.

River Diversion—North White Plains, N. Y.—Lowest bid opened Dec. 18 by Bronx Parkway Comn. (Jay Downer, Engr.), 100 Bway., New York, for Contract 12 of Bronx River Diversion at North White Plains, was submitted by Tony Maraio, Tuckahoe; he bid for 900 cu. yds. rock excav. $1; 2800 cu. yds. excav. other material 39 cts.; total, $1,992.

Electric Hoists—Philadelphia, Pa.—Bids desired until Feb. 3 by Geo. W. Norris, Dir. Dept. Wharves, Docks & Ferries, 555 Bourse Bldg., Philadelphia, for electric hoists for Southwark Piers in Delaware River between Catharine and Christian Sts., advertised in Engineering Record.

Dredging—Baltimore, Md.—Bids desired until Jan. 20 by Bd. Awards care of City Register's office for dredging main channel of Lazaretto Light to the piers of Transatlantic Liners, advertised in Engineering Record. O. F. Lackey, Harbor Engr., City Hall.

Dam—Millville, W. Va.—D. M. Swink, of Winchester, Mgr. Northern Virginia Power Co., writes that a permit has been asked from Public Service Comn. of West Virginia to build a 21-ft. concrete dam, 1000 ft. long across Shenandoah River at Millville, as an addition to the hydro-electric power plant.

Drainage — Orangeburg, S. C.—F. G. Eason and D. F. Culbertson, representing the Dept. of Drainage investigations, U. S. Dept. of Agriculture, has presented to the State Dept. of Agriculture at Columbia, S. C., a report on the drainage for the Cowcastle drainage district, in Orangeburg County. The area of the proposed district is 42,353 acres, or about 66 sq. miles. The district is about 18 miles long and averages about 3½ miles in width. The primary outlet of the district is Cowcastle swamp: estimated cost of draining district is $186,371.

Terminals — Jacksonville, Fla. — Capt. Fred. Bruce, Ch. Engr. Port Comrs., reported to have been authorized to prepare definite plans for proposed municipal docks.

Jetty Work—St. Petersburg, Fla.—Following are the totals of bids opened Dec. 30 by Maj. W. B. Ladue, Corps Engrs., U. S. A., Jacksonville, for furnishing material and building stone jetty at entrance to St. Petersburg Harbor: Edwards Constr. Co., Tampa, $12,519 and Simons-Mayrant Co., Charleston, S. C., $12,800.

Drainage—Gonzales, La.—Official reports state bids to be received by the Comrs. of New River Drainage Dist., at Gonzales until Feb. 4 call for excavating drainage canal in said district, approximating 2,000,000 cu. yds. Specifications can be obtained from C. C. Weber, Secy. of Dist., at Donaldsonville.

Levee Work—New Orleans, La.—Bids were opened Dec. 29 by Maj. W. G. Caples, Corps Engrs., U. S. A., New Orleans, for constructing about 202,000 cu. yds. earthwork in Lower Tensas Levee Dist., and following are bids received: J. T. Van Fossen, Lake Providence, La., 101,000 cu. yds. Bayou Vidal, 13.25 cts.; and Robt. Nicholson & Co., Lake Providence, La., 101,000 cu. yds. Dahlia Levee, 17.46 cts.

★**Terminal Improvements and Warehouses—New Orleans, La.**—Contract has been awarded on bids opened Dec. 14 by Bd. Comrs., port New Orleans, Suite 200, New Orleans Court Bldg., for construction of compress No. 1, sorting sheds Nos. 1 and 2 power house, garage, office, warehouses J, K, G and H, and their appurtenances, to be located on east bank of Mississippi River, between Napoleon Ave. and Soniat St., from plans of Ford, Bacon & Davis, 921 Canal St., to Jefferson Constr. Co., New Orleans, at the revised bid of about $994,747. The Corrugated Bar Co., of St. Louis, is reported to have secured contract to supply the steel bars and reinforcing work, at about $100,000.

Ditch—St. James, Minn.—Bids reported desired until Jan. 12 at office of J. Jensen, Co. Aud., St. James, for constructing Judicial Ditch No. 8, Counties of Watonwan and Brown. Probable cost $8,528.

Drainage—St. Paul, Minn.—The State Drainage Comn. has recommended to State Legislature the drainage of 50,000 acres of swamps north of Roseau River.

Irrigation Work—Polson, Mont.—Following are totals of bids opened Dec. 22 by U. S. Reclamation Service, St. Ignatius, Mont., for construction of structures on Pabla Laterals A and 31A and sub-laterals (Schedules 1, 2 and 3): Two Miracle Concrete Cor., Kalispell, $31,384; Wilson Bros., Polson, $45,070; A. L. Markhus, Polson, $51,390; Municipal Constr. Co., Helena, bid only on Schedules 1 and 3, a total of $21,123.

Jetty Work — Dallas, Tex.—Following are the official bids as opened Dec. 12 by Maj. T. H. Jackson, Corps Engrs., U. S. A., for jetty work at Sabine Pass, Tex.—(a) foundation work, properly placed in work, per ton of 2000 lbs.; (b) core stone, properly placed in the work, per ton of 2000 lbs.; (c) slope stone, properly placed in the work, per ton of 2000 lbs.; (d) total: Chas. Clarke & Co., Galveston, (a) $2.84, (b) and (c) $2.86, $88,660; (d) $174,080; (a) and (b) is for sandstone, (c) granite; Edw. Gillen Dock, Dredge & Constr. Co., Racine, Wis., (a), (b) and (c) $3, (d) $183,000 (all granite); David M. Picton & Co., Galveston, (a) and (b) $2.85, (c) $3.10, (d) $176,600 (all sandstone); Miller Eng. Co., Little Rock, Ark., (a) $3.07, (b) $3.50, (c) $3.57, (d) $198,970, and will furnish sandstone, limestone, granite or other stone satisfactory to contracting officer.

Irrigation—El Paso, Tex.—L. M. Lawson, Project Mgr., Rio Grande Project, U. S. Reclamation Service, El Paso, writes with regard to work on Mesilla Diversion Dam; that this structure is to be constructed by U. S. Reclamation Service by force account; total estimated cost $120,000. Most of the construction equipment has already been contracted for; and bids will be called for soon to furnish the special river and sluice gates and operating machinery.

Drainage — Walla Walla, Wash. — Two bids were recently opened by Comrs. of Attalia Drainage Dist. for constructing drainage system, as follows: C. A. Broad, Spokane, and H. L. Wilson, Walla Walla; each bid approximately $48,000. Contract not yet awarded.

Dredging—Los Angeles, Cal.—The Harbor Comn. reported to have decided to ask for bids for dredging east channel to a uniform depth of 35 ft.; cost about $40,000.

Irrigation—Oakdale, Cal.—Bids will be opened about Feb. 10 by Oakdale Irrigation Dist. for work in connection with said District. Probable cost $400,000.

Pier—San Francisco, Cal.—Bids desired by the Bd. of State Harbor Comrs., Ferry Bldg., until Jan. 14 for constructing Pier 24 at foot of Harrison St., to be 127 ft. wide and 800 ft. long, to have depressed track on one side connecting with belt railroad; 1-story shed over pier. Jerome Newman, Asst. State Engr.

Irrigation Work—Payson City, Utah.—Bids desired until Feb. 3 by U. S. Reclamation Service, Provo, Utah, for construction of about 158,000 yds. of excav., 7000 yds. concrete and other items, advertised in Engineering Record. Work is located near Payson City, Utah, near San Pedro, Los Angeles and Salt Lake R.R. and the Tintic Branch of Denver & Rio Grande R.R.

Irrigation Bonds — Boise, Idaho.—Bids reported desired until Jan. 12 by Geo. R. Proctor, Secy. Bd. Directors, Grand View Irrigation Dist., for $67,000 bonds, issued for purpose of constructing canal to grade, building cement wasteways and metal flumes, reinforcing and rebuilding Grand View Irrigation Dist. Diversion across Bruneau River.

Pumping Units—Minidoka, Idaho—Bids desired until Jan. 20 by U. S. Reclamation Service, Los Angeles, Cal., (O. H. Ensign, Ch. Electrical Engr.), for furnishing centrifugal pumps and frame work for the Boersch Lake Pumping Plant, Minidoka; also same place until Jan. 25 for furnishing electrical apparatus for the same project.

Pumping Plant of Dry Dock, No. 1—Panama.—Bids desired until Feb. 24 by Maj. F. C. Boggs, Corps Engrs., U. S. A., General Purchasing Officer, Panama Canal, Washington, D. C., for pumping plant of dry dock No. 1, Balboa Terminals, according to Circular 891; also same time and place for valves and accessories for dry dock No. 1, Balbao Terminals, Circular 892.

ELECTRIC RAILWAYS.

Items Arranged Geographically

Haddonfield, N. J.—Plans being considered to build electric railway to connect Haddonfield, Berlin and Gibbsboro. Frank O. Stem, Berlin, said to be interested.

New Castle, Del.—Plans being made by Wilmington, New Castle & Delaware Ry. Co. to install new roadbed on 5½ miles of company's lines. W. E. Myers, Gen. Supt., New Castle.

Charlestown, W. Va.—About 18 miles new track will be built by Charlestown-Dunbar Traction Co. (E. W. Alexander, Mgr., Charlestown) during 1915.

New Orleans, La.—Orleans-Kenner Ry. Co. has received franchise from Council to construct interurban railway between New Orleans and Kenner.

Somerset, Ky.—Plans being considered by Kentucky Utilities Co. (Jas. Cline, Somerset) for constructing an extension between Somerset and Burnside, distance 7 miles.

Rochester, Ind.—United Public Service Co. incorporated to build electric railway in Rochester. Capital $250,000. Incorporators: John E. Beyer, Earl E. Beyer and Chas. A. Davis.

Cannon Falls, Minn.—St. Paul Southern Electric Co. (W. L. Sonntag, Gen. Mgr., St. Paul) will build electric railway between Cannon Falls, Zumbrota, Pine Island and White Rock, in all 30 miles, during 1915.

Clarkston, Wash.—Franchise granted to A. G. Nortz and associates by City Council for constructing and operating electric railway from Lewiston to Clarkston Bridge through streets of Clarkston.

Vancouver, Wash.—Application for a charter has been made by Portland, Vancouver & Northern Ry. Co. in Washington to build electric line between Vancouver, Wash., and Portland, Ore. Henry Crass, Mayor of Vancouver, to be Pres., and Geo. W. Ford, Secy.

San Francisco, Cal.—City Engineer is preparing plans and specifications for constructing Church St. Municipal Ry. for San Francisco Municipal Ry.

Ukiah, Cal.—Preliminary arrangements being made to construct electric railway to connect Ukiah, Cold Creek, Uperlake and Potter Valley. E. L. Cunningham said to be interested.

Brigham City, Utah. — Ogden Rapid Transit Co. plans to build 33-mile northern terminus between Wellsville, Mendon, Collinston, Deweyville, Honeyville, Garland, Tremonton and Brigham City. P. D. Kline, Gen. Mgr., Ogden.

Provo, Utah.—Salt Lake & Utah Ry. Co. will build 18-mile railway between Provo, Springville and Payson. W. C. Orem, Gen. Mgr., Salt Lake City.

Ottawa, Ont.—During 1915 Morrisburg & Ottawa Electric Ry. Co. (L. Von Lydon, Ch. Engr., Ottawa) plans to build 50-mile railway between Ottawa and Morrisburg.

Toronto, Ont.—During 1915 Toronto & Suburban St. Ry. Co. (Geo. C. Royce, Gen. Mgr., W. Toronto) plans to build 40 miles new track between Toronto and Guelph.

East Kildonan, Man.—Public Utilities Comn. of East Kildonan is considering plans for constructing electric railway between East Kildonan and Morse Pl.

Regina, Sask.—About 1½ miles new track will be constructed during 1915 by Regina Municipal Ry. Co. D. W. Houston, Supt., Regina.

RAILROADS.

Items Arranged Geographically

Jacksonville, Fla.—The Atlantic Harbor R. R. Co. is reported formed, and will apply for a charter Jan. 15 for the construction of a railroad from Ft. George Island and St. Johns River, northerly and crossing Sister Creek, thence westerly to a point located at or near Plummer, Duval County, Florida; also a branch to extend from main line to the northerly limits of city of Jacksonville; total length of the main and branch lines approximately 30 miles; it is also proposed to construct terminals. Incorporators: Geo. J. Percival, Atlantic City, N. J.; Francis B. McGarry, Jacksonville; W. M. Wright, St. Augustine, and others.

Cincinnati, O.—Councilman Conner has asked City Solicitor Schoenle to prepare an ordinance providing for a $700,000 bond issue, the city's share of cost of eliminating 26 grade crossings in Cumminsville by elevating the railroad tracks for almost 2 miles; cost roughly estimated at $2,000,000, of which the railroads would pay 65 per cent and the city 35 per cent.

Youngstown, O.—The question of estimating the Himrod Ave. crossing reported under consideration. The work includes the construction of a bridge; the latter City Engineer estimates will cost about $500,000.

Milwaukee, Wis.—City Attorney Hoan has received from the State Railroad Comn. final order for elimination of the railroad tracks from streets along northwestern section of city. The work to be finished by Dec. 31, 1918, at an estimated cost of $2,000,000, to be divided between the Milwaukee R.R. Co., the city and the Milwaukee Electric Ry. & Light Co. Work includes viaducts over 35th, Vliet, Galena, Lisbon Ave., Brown St. and North Ave.

★**Hoquiam, Wash.**—Contract reported awarded to Hans Pederson, Madison Blk., Seattle, at about $25,000, for grading work on line at Hoquiam, for the C. M. & P. S. Ry. Co.

★**Tacoma, Wash.**—Contract for filling tunnel at Tacoma for the Union Pacific Ry. Co. reported awarded to Grant, Smith & Co., Henry Bldg., Seattle, at about $50,000.

Superior, Ariz.—The Hagma-Arizona R. R. Co. reported incorporated, with a capitial for $200,000 to construct a railroad from the works of the Magma Copper Co. at Superior to Queen Creek and Webster Siding on the Arizona Eastern.

Melbourne, Australia.—See "Miscellaneous."

PUBLIC BUILDINGS AND SCHOOLS.

Items Arranged Geographically

Boston, Mass.—Bids desired by Chairman Bd. Trustees, Consumptives' Hospital Dept., Boston, for general contract for buildings on hospital grounds, River St., Mattapan, as follows:

Until Jan. 20: Addition to Men's Cottage Ward.

Until Jan. 21: New Ward M.

Until Jan. 22: New Ward C.

Also separate bids same dates as above for plumbing, ventilating and heating and electric work for above buildings. Maginnis & Walsh, Archts., 100 Boylston St.; Hollis French & Allen Hubbard, Engrs., 88 Pearl St.

Worcester, Mass.—All bids received recently by Trus. Polytechnic Inst. for erecting the gymnasium, were rejected as being too high; plans are to be revised and the same contractors asked to bid again. Prof. Arthur D. Butterfield, Secy. Executive Com.

New Britain, Conn.—Bids desired by Walter P. Crabtree, Archt., 272 Main St., until Jan. 20, for the erection of a 2-story fireproof vocational high school, separate bids to be received at the same time for ventilating, heating, plumbing and electrical work; total cost, $150,000

Seymour, Conn.—Plans are being prepared by Murphy & Dana, 331 Madison Ave., New York, for the new library. W. L. Ward, Pres. Library Bd.

Albany, N. Y.—The converting of the Albany Penitentiary into a modern jail has been recommended to the Bd. of Superv. Cost, $185,000.

Binghamton, N. Y.—Bids desired until Jan. 21 by State Hospital Comn., Albany, for construction, heating, plumbing and electric work for new building for chronic patients; also new boiler stack, etc., at Binghamton State Hospital, Binghamton. Lewis F. Pilcher, State Archt., Albany.

Buffalo, N. Y.—Following are lowest of bids received, Dec. 29, by Bd. Superv. for reconstructing the Erie County Jail: Masonry, C. H. Everitt, $57,500; steel and iron work, Buffalo Structural Steel Co., $36,000; plumbing, Kelly & Kelly Contr. Co., $11,500; removing old cells, etc., C. F. Ernst, $51,389; all material and labor, Van Dorn Iron Wks., $107,316.

Bids desired until 11 a. m., Jan. 8, by Commissioner Pub. Wks., for furnishing material and erecting a 2-story, fireproof police station in Precinct No. 2, S. Division and Springs Sts.

Rochester, N. Y.—Following are lowest bids received Dec. 22 by Bd. Educ. for addition to School No. 26: Masonry, Peter J. Hauck, $27,793; carpentry, W. F. Maas, $12,799; masonry and carpentry, A. W. Hopeman & Sons, $42,150; plumbing, heating and ventilating, R. T. Ford Co., $11,642.

Belleville, N. J.—The Clerk Bd. Educ. writes 20 bids were received Dec. 29 for erecting the high school, but all were rejected, as they exceeded the appropriation, which is $106,000. Lowest bidder reported to be Altoria Realty & Constr. Co., New York, at $108,667.

New bids desired until Jan. 19 (readvertisement) by Bd. Educ., (J. J. Turner, Clk.), for erecting above High School. Chas. Granville Jones, Archt., 280 Bway., New York.

Hackettstown, N. J.—Bids reported desired until Jan. 21 by Bd. Educ. (W. W. Taylor, Pres.) for erecting a 2-wing addition to school, 2 stories, 35 x 144 ft. each. Probable cost $75,000. Wm. W. Rasmussen, Archt., 1133 Bway., New York.

Jersey City, N. J.—Bd. Freeholders it is reported will soon ask bids for erecting a hospital addition at the Hudson County Insane Asylum.

★*Items marked thus give the names of parties awarded contracts.*

★**Newark, N. J.**—Contract for erecting the bath house on the East Side at Hamburg Pl., reported awarded to Philip L. Mackinson, at $81,089.

Following bids have been recommended for award for erecting the new wing at the City Hospital: mason, concrete and carpenter work, Wm. G. Sharwell & Co.; iron, etc., Chas. Goeller; sheet metal, etc., Wm. Schaefer, Inc.; heating, Jas. A. Kelly; plumbing, Jaehnig & Peoples; total cost, including architect's fee, $99,852.

Paterson, N. J.—Fred. Wentworth, 140 Market St., is preparing plans for a 2-story brick building, 140 x 170 ft., for School No. 10, to cost about $223,000. Lewis T. Eden, 1 Madison Ave., New York, is heating engineer.

Lebanon, Pa.—Reported bids about to be asked for erecting armory, 2 stories, brick and stone, for the State of Pennsylvania, according to plans by McCormick & French, Wilkes-Barre; cost $50,000.

Muncy, Pa.—Site 2 miles west of here has been selected for the proposed State Industrial Home for Women. Plans for the buildings, which are to be on the cottage plan, are to be prepared by Horace A. Trumbauer, of Philadelphia. John Birkinbine, of Philadelphia Hydraulic and Sewage Disposal Eng. Address State Bd. Charities, Harrisburg.

Philadelphia, Pa.—Bids reported desired until Jan. 12 for erecting following buildings according to plans by Philip H. Johnson, Land Title Bldg.: Power House for Home for Indigents at Holmesburg, cost $140,000; observation building and nurses' home at 2d and Locust Sts., cost $185,000.

Reported Trus. of the Presbyterian Hospital will erect at 39th and Filbert Sts. a group of buildings consisting of 7 structures, costing $1,000,000.

York, Pa.—The almshouse to be erected here by the Co. Comrs. is to consist of administration building, chapel, nurses' home, power house and outbuildings, and is to cost $350,000. B. F. Willis, Archt., West Market St., York.

Newark, Del.—Plans for the greater Delaware College are to be prepared b Frank Miles Day, Philadelphia, Pa.

★**Wilmington, Del.**—Contract for interior cut stone work in the joint county and municipal building, reported awarded to Wm. Bradley Co., at $24,000.

Washington, D. C.—Bids desired until Jan. 27 by S. I. Kimball, Gen. Supt. U. S. Life Saving Dept., Treas. Dept., Washington, D. C., for construction of a life saving station boathoust and accessories at Point of Woods, N. Y., advertised in Engineering Record.

Washington, D. C.—Plans for school building and dormitories at the Stonewall Jackson Inst. are to be prepared by Flournoy & Flournoy, Wilkins Bldg., Washington. Cost, $100,000.

★Contract for erecting a fireproof general storehouse at the Navy Yard, Washington, awarded to Geo. E. Wyne, Washington, at $161,700.

Jacksonville, Fla.—Reported lowest bid received for erecting the criminal court building and the jail and jailer's residence was submitted by W. P. Richardson & Co., Jacksonville, at $185,000; this company also submitted the lowest bid for court house at $164,000.

★**Asheville, N. C.**—Contract for erecting addition to Mission Hospital (bids opened Dec. 15) has been awarded to Longesh & Tessier Co., of Greensboro; probable cost, $50,000. W. H. Lord, Archt., Asheville.

Canton, Miss.—Following are four lowest bidders on bids opened Dec. 22 by Superv. Archt., Washington, D. C., for constructing U. S. Post Office at Canton—(a) limestone, (b) sandstone: W. H. Fissell & Co., New York, (a) $40,300, (b) $42,300; Algernon Blair, Montgomery, Ala., (a) $39,475, (b) $40,000; J. L. Crouse, Greensboro, N. C., (a) $39,778, (b) $40,778; Mayben & Fruechtel, Gadsden, Ala., (a) $39,467, (b) $40,775.

★**Jellico, Tenn.**—Contract for erecting U. S. Post Office awarded to W. H. Fissell & Co., New York, N. Y., at $59,700, using limestone.

Middlesboro, Ky.—Following are four lowest bidders on bids opened Dec. 23 by Superv. Archt., Washington, D. C., for constructing U. S. Post Office using limestone (bids were also submitted on other kinds of stone): John G. Unkefer & Co., Minerva, O., $62,840; Wm. Everly, Indianapolis, $66,747; W. H. Fissell & Co., New York, N. Y., $67,450; Geo. W. Stiles Constr. Co., Chicago, Ill., $67,474.

Canton, O.—Geo. F. Hammond, Cleveland, has been selected as the architect for the new high school, which is to cost $200,000. N. C. Lane, Clk. Bd. Educ.

Champion, O.—Bids desired by F. R. Boyd, Clk. Bd. Educ., until Mar. 1 for erection of a 2-story and basement fireproof, brick, tile and concrete school, 63 x 75 ft., to cost $25,000. Kling & Zenk, Archts., Youngstown.

Chillicothe, O.—Bd. Educ. is about to employ an architect for the new school.

★**Cleveland, O.**—Contract for erecting 6-story hospital has been awarded to C. A. Carson Co., Cleveland. Walker & Weeks, Archts., Cleveland.

Co. Comrs. have decided to erect a juvenile detention home costing $65,000.

East Cleveland, O.—Meade & Hamilton, Garfield Bldg., Cleveland, have been engaged by Library Bd. to prepare plans for a 1-story brick library costing $55,000, to be erected on Euclid Ave.

Waldo, O.—Bids reported desired until Jan. 16 by Bd. Educ., Waldo Township (H. O. Donithen, Pres.) for erecting brick and stone school. Howard & Merriam, Archts., 8 E. Broad St., Columbus.

Willoughby, O.—School bonds amounting to $85,000 have been sold.

★**Detroit, Mich.**—Contract for alterations and extensions to the U. S. Post Office and Custom House awarded by Superv. Archt., Washington, D. C., to John Finn & Son, Detroit, at $49,500.

★**Detroit, Mich.**—Contract for excavating and foundation for the new public library awarded to Irwin & Leighton, Philadelphia, Pa., at $61,600.

★**Marquette, Mich.**—Contract for erecting U. S. Post Office awarded to Defold & Co., Pittsburgh, Pa.

Munising, Mich.—Plans being prepared by Charlton & Kuenzli, Munising, and Milwaukee, Wis., for a school to erected here, to be 3 stories, brick and stone, and cost $75,000.

★**Menomonie, Wis.**—General contract for erecting domestic science building at the Stout Univ. awarded to Madsen Bros., Minneapolis, Minn., at $147,742.

Oshkosh, Wis.—Wm. Hittle, Secy. State Bd. Regents, Madison, writes bids will not be received for one or two months for the proposed new buildings at the Oshkosh Normal School; cost about $100,000. Archts., Van Ryn & DeGelleke, Milwaukee.

Whitewater, Wis.—Plans will be opened Jan. 16 for a gymnasium for the Normal School. Archts., Van Ryn & DeGelleke, Milwaukee.

Pella, Ia.—Bids will probably be received in February for the proposed high school; it will be 2 stories, of brick and stone, semi-fireproof, and cost about $40,000. Jas. S. Cox, Archt., Estherville.

★**Mandan, N. D.**—Contract for erecting U. S. Post Office reported awarded to Geo. W. Stiles Constr. Co., Chicago, at $47,245.

Atchison, Kan.—Bids reported desired until Jan. 15, for erecting Martin School, 2-story. Probable cost, $50,000. Saylor & Seddon, Archts., Gumbel Bldg., Kansas City, Mo.

Independence, Kan.—Competitive plans will be received until Jan. 12 by City Clerk for a city hall to cost $38,000.

Lincoln, Neb.—Bids desired until Feb. 18 by Supervising Architect, Washington, D. C., for constructing an extension to U. S. Post Office at Lincoln.

Miles City, Mont.—Bids desired until Feb. 27 by Supervising Architect, Washington, D. C., for construction, complete (including mechanical equipment, lighting fixtures and approaches), of U. S. Post Office, Miles City.

Paris, Tex.—Citizens voted Dec. 29 to issue $100,000 bonds for erecting school. E. H. McCustion, Mayor.

San Antonio, Tex.—Bids desired until Feb. 4 by Constructing Quarter Master, Ft. Sam Houston, for constructing barracks, lavatory and stable, including plumbing for pack train at old target range, about 4 miles northeast of San Antonio.

Lawton, Okla.—Bids desired until Mar. 6 by Supervising Architect, Washington, D. C., for construction, complete (including mechanical equipment, except elevator and approaches), of U. S. Post Office and Court House at Lawton.

Socorro, N. M.—Bids reported desired until Jan. 26 by A. C. Torres, President Bd. Regents, School of Mines, for concrete foundation for Mining and Metallurgical building; also brick superstructure and windows, woodwork, etc.

Spokane, Wash.—Lowest bids received for erecting the brick and semi-fireproof county tuberculosis hospital were submitted as follows: General contract, J. E. Cunningham, at $45,187; heating, Blair Meagher Co., $10,075; plumbing, Standard Plumb. & Htg. Co., $6,846.

Pendleton, Ore.—Plans completed for the U. S. Post Office, which is to cost $122,000, and it is reported bids will be asked in February by Superv. Archt., Washington, D. C., for the construction of the building.

Fresno, Cal.—Bids desired until Feb. 1 by W. F. McClure, State Engr., Sacramento, for erecting main building, gymnasium and boiler house of Fresno State Normal School. Bids desired for masonry, structural steel and iron, carpentry, metal furring, sheet metal and roofing, ornamental iron work, marble and tile work and electric wiring; also plumbing, sewers, gas fitting, vacuum cleaning system, steam heating and fitting and indirect heating and ventilating system; also boiler plant equipment of building, to be known as gymnasium and boiler house.

Palo Alto, Cal.—Reported Allison & Allison, Los Angeles, have been selected as architects for the polytechnic high school to consist of a group of 4 buildings, brick and hollow tile terra cotta, and cost $150,000.

Puente, Cal.—Bonds in the sum of $65,000 have been voted for the construction of a high school.

Rio Vista, Cal.—Plans completed by H. C. Smith, Humboldt Bank Bldg., San Francisco, for the two 2-story schools, concrete construction, to be erected at a cost of $60,000 each.

San Francisco, Cal.—Lowest bid received by Bd. Works for constructing a garage and pathological building at the San Francisco Hospital submitted by Jas. L. McLaughlin at $78,900.

San Pedro, Cal.—S. A. Jubb, of San Pedro, Asst. Eng. of Los Angeles Harbor Comm. writes that proposed municipal warehouse will be fireproof, of concrete, 6 stories high, and cost $350,000; to be built with elevators, hoists, electric light and sprinkler systems.

Winters, Cal.—Citizens voted in favor of issuing $50,000 bonds for erecting a joint high school.

Tucson, Ariz.—Citizens Dec. 14 voted in favor of issuing $50,000 bonds to erect a city hall.

★**Logan, Utah.**—Contracts for erecting Utah Agricultural College building have been awarded as follows: General contract, to Hyde & Thompson Bldg. Co., Logan, at $39,492; heating, plumbing and ventilating, to F. W. Spencer Plumb. Co., Salt Lake City, at $7,888. John L. Coburn, Secy. Bd. Trus.

The Pas, Man.—School Dist. No. 1635 will erect a 2-story brick school, to cost $40,000 to $50,000. David Clapp, Secy.-Treas.

PRIVATE BUILDINGS.

Items Arranged Geographically

Boston, Mass.—Lester H. Stanley, intends erecting on Albany St. a 6-story mercantile building of brick and stone.

★**Springfield, Mass.**—Contract for alterations in the building of the Smith & Murray Co., at Main and Court Sts., awarded to E. J. Pinney, at a cost of $125,000. B. H. Seabury, Archt., Springfield.

West Barrington, R. I.—A 2-story, 40 x 130 ft. storeroom is to be erected for the A. Bannon Corporation.

Brooklyn, N. Y.—Plans have been completed by Gronenberg & Leuchtag, 303 5th Ave., New York, for two 4-story apartment houses, to be erected by the Bensonhurst Improv. Co., at Crospey and 21st Aves., to cost $100,000.

Plans being prepared by Shampan & Shampan, 772 Bway., for 5-story apartment house to be erected on 68th St. and 4th Ave. for the Boyd Realty Co. at a cost of $80,000.

Cooperstown, N. Y.—Reported Delaware & Hudson R. R. (Jas. MacMartin, Ch. Engr., Albany) intends erecting a station here costing $60,000.

Long Beach, L. I., N. Y.—Preliminary plans are being prepared by Kirby & Petit, 103 Park Ave., New York, for a 7 or 8-story brick and stone semi-fireproof hotel which it is proposed erecting on the boardwalk.

★**New York, N. Y.**—Contract for erecting the Y. M. C. A. Building on 3d St., east of the Bowery, for the Bowery Branch awarded to Geo. A. Fuller Co., 111 Broadway. Building is to be 7-story of reinforced concrete construction; Jackson, Rosecrans & Waterbury, Archts., 1328 Broadway.

Trus. of the Cathedral of St. John the Divine have signed contracts with Cram & Ferguson, of Boston, Mass., for construction plans and designs for the cathedral nave, the entire cost to be $1,000,000. The nave is to be 170 ft. high, 240 ft. long and constructed of Peekskill granite.

Camden, N. J.—Reported steps are being taken to rebuild the terminal which was destroyed by fire Jan. 3.

Hoboken, N. J.—Reported Odd Fellows Hall, which was recently destroyed by fire, is to be rebuilt.

Johnstown, Pa.—Kenneth Murchison, 101 Park Ave., New York, reported architect for passenger station and shelter sheds to be erected in this city by the Pennsylvania R.R.; brick and stone and structural steel. Contract for heating system in said building awarded to Meyer & Bassett, 101 Park Ave., New York.

New Castle, Pa.—Bids desired about Feb. 15 for the erection of a 3-story Masonic temple, 50 x 115 ft., from plans of C. C. & A. L. Thayer, of New Castle.

Philadelphia, Pa.—Revised plans about completed by B. J. Medoff & Son, 524 Walnut St., for a 1-story brick and stone theater and store building to be erected for the Jos. Fisher Co., 720 Sansom St., at 31st and Wilt Sts.; cost $50,000.

Sharon, Pa.—Plans being prepared by F. E. Clepper & Co., Youngstown, O., for a 2-story brick, steel and concrete store and office building for the Sharon Commercial Arcade Co. Cost, $100,000.

Wilkesbarre, Pa.—Revised plans completed by Fulton & Butler, West Main St., Uniontown, for a 2-story stone church to be erected for the St. John's Lutheran Church at a cost of $50,000.

Washington, D. C.—Plans are being prepared by Hunter & Bell, 1421 H St. N. W., for a 7-story apartment house to be erected at Connecticut and Wyoming Aves., to cost $400,000.

Wilmington, Del.—Bids desired by John J. Kennedy, Archt., Ford Bldg., Wilmington, until Mar. 25 for the erection of a 4-story brick and terra cotta building 50 x 100 ft. for the Knights of Columbus; cost, $40,000.

Norfolk, Va.—Plans have been prepared by Rossell Edw. Mitchell, Dickson Bldg., and F. Nelson Wilcox, for an 11-story stone and terra cotta apartment house to be erected on Dundaff St. and Fairfax Ave., at a cost including site of $275,000.

Plans are being prepared by Neff & Thompson, Seaboard Bank Bldg., for a block of 1-story fireproof store buildings to be erected on Granby and Bate Sts. at a cost, including site, of $200,000. Higgins Land Corporation, owners.

Columbia, S. C.—A Y. M. C. A. building costing $75,000 is to be erected at Clemson College.

★**Spartanburg, S. C.**—Contract for erecting the building for the First Natl. Bank on Magnolia St. and Morgan Sq. awarded to Willard Boggs. & Co., Spartanburg; cost, about $60,000.

Louisville, Ky.—Plans are to be prepared by Ward & Glossop, Paul Jones Bldg., for a 2-story bank building, to be erected at 5th and Jefferson Sts.

Cleveland, O.—The West Ninth Street Terminal Co., in which Geo. T. Bishop, 1000 Schofield Bldg., is interested, will soon take steps to erect the 8 and 12-story freight terminal warehouse at W. 9th St. and Main Ave.; cost $4,000,000. A refrigerating system is to be installed and 11 tracks; the building is to be used by the Big Four and the Lake Shore Railroads.

★**Cleveland, O.**—General contract for erecting 6-story, light, manufacturing building at 310 Lakeside Ave. awarded to Masters & Mullens Co., Rose Bldg., by the Crown Land Co., owners. Forest City Eng. Co., Hippodrome Bldg., Archts.

Ironton, O.—Howard & Merriam, Columbus, are architects for hotel to be erected here at a cost of $200,000.

Wellsville, O.—Bids reported desired until Jan. 16 by M. E. Church (Rev. Edw. A. Jester, Pastor) for erecting 1-story, basement and sub-basement, 60 x 114 ft., edifice at Main and 5th Sts. S. R. Badgley, Archt., 6408 Euclid Ave., Cleveland.

Rochester, Ind.—Randolph Sperling, reported to be planning erecting a hotel in this city to cost $100,000.

Saginaw, Mich.—Reported Saginaw Hippodrome Co. incorporated with capital of $150,000 and intends erecting a theatre. Edmund Schram, of Saginaw, Resident Mgr.

Joliet, Ill.—Plans being prepared by R. H. Hoen, Room 417, Joliet Natl. Bank Bldg., Joliet, for a 7-story building with roof garden, 66 x 150 ft., of Bedford stone, steel, brick and concrete, to be erected by Paul Revere Lodge Knights of Pythias; cost $200,000. Bids for construction will be received about Mar. 15.

Sioux City, Ia.—The Elks are reported to be planning the erection of a club house costing $75,000.

Austin, Tex.—First Methodist Church plans erection of new edifice on present site, to be of either brick or stone and cost $100,000.

Houston, Tex.—Mrs. Pauline Wolff will erect a fireproof building on Main St., to be known as the Sterne Bldg., and to cost $60,000.

Seattle, Wash.—A 4-story 60 x 120 ft. reinforced concrete garage and salesroom is to be erected at 11th Ave. and E. Pine St. by Manning & Morris, Christie Bldg.; cost, $60,000.

★Contract for erecting first unit of the studio and administration building for the Puget Sound Film Developing Co., at Renton Junction, awarded to S. G. Coombs, Arcade Annex. Warren H. Milner, Arcade Bldg., Archt. First unit is to cost $100,000, and building complete $350,000.

Walla Walla, Wash.—Plans are to be prepared by Geo. H. Purvis, Seattle, for a theatre to be erected for A. W. Eiler, Manager of the Bijou Theatre, and which is to cost $75,000.

Clarence Crews, Mgr. Dime Theater, intends erecting a theater costing $50,000.

Beverly Hills, Cal.—Plans are being prepared by Hunt & Burns, Los Angeles, for a residence to be erected for Henry D. Lombard, at a cost of $50,000.

Sacramento, Cal.—Plans prepared by C. C. Cuff, Ochsner Bldg., for a 7-story business building to be erected on K St.; cost, $150,000.

Plans prepared by E. C. Hemmings, Diepenbrock Bldg., for an 8-story office building, costing $150,000. Preliminary plans have been prepared by the same architect for a store and office building on J St. to cost $100,000.

Toronto, Ont.—Bids desired until Jan. 15 (extension of date from Dec. 29) by H. P. Knowles, Archt., 1170 Broadway, New York City, and Burke, Horwood & White, Archts., Ryrie Bldg., Toronto, for erecting a Masonic Temple.

★*Items marked thus give the names of parties awarded contracts.*

Vancouver, B. C.—W. F. Gardiner, 347 Pender St. W., is preparing plans for a bank building for the Canadian Bank of Commerce, cost reported to be about $[illegible]

NEW INDUSTRIAL PLANTS.

See also "Private Buildings."
Items Arranged Geographically.

★**Salem, Mass.**—Contract for erecting addition to weave sheds of the plant of the Naumkeag Cotton Co., awarded to Fred T. Ley & Co., Springfield, to be of reinforced concrete construction, cost is reported at $400,000.

Worcester, Mass.—The Mills Woven Curtrade Belt Co., 70 Webster St., intends erecting an addition to their plant costing $[illegible]

Buffalo, N. Y.—A 37 x 147 ft. steel storehouse is to be erected at the Atlas plant of the Atlas Cut Co., Elk St. and Buffalo Creek R.R. H. P. Chamberlain, Pres.

★Contract reported awarded to Turner Const. Co., by Robertson Cataract Electric Co., for erecting 4-story reinforced concrete shop and factory building, 40 x [illegible] ft., at S. Elmwood Ave. and W. Mohawk St.

Lumber Iron Works, recently incorporated, reported to have purchased the foundry and slag machinery owned by Riverview Foundry Co. and will equip same for manufacture of gray iron castings. Jas. J. Lynch, Pres., Tonawanda St.

The Buffalo Lounge Co. will erect a factory addition on the factory at Hamburger St. and Erie R.R. Henry J. Jacobs, Pres.

Plans being prepared by Morgan Eng. Co., Commerce of Commerce Bldg., for grain elevator of 1,000,000 cu. ft. capacity, to be erected on Buffalo River and N. Y. Central R. R. for the Eastern Grain Mill & Elevator Co. Building is to be of reinforced concrete with structural steel roof truss. Nisbett Grammer, Marine Natl. Bank Bldg., Pres.

Camden, N. Y.—Plans being completed for power plant for the Hydraulic Turbine Corp. intends erecting, to consist of a factory building 100 x 50 ft., with an "L" 40 x 50 ft., estimated cost $200,000. Russell S. Johnson, Pres., City Bank Bldg., Utica.

Endicott, N. Y.—Plans being prepared for a warehouse, 100 x 200 ft., 3 stories, to be erected at the plant of the Endicott Johnson Co. early next spring.

Mariners Harbor, S. I., N. Y.—Reported Mexican Petroleum Co., Inc., represented by Fredk. R. Kellogg, 52 Bway., New York, has preliminary plans under way for a fireproof oil plant of reinforced concrete construction to be erected here at a cost of approximately $1,500,000. It is expected that operation will be undertaken by next June.

Poughkeepsie, N. Y.—Plans being prepared by W. J. Beardsley, 47 Market St., for 2-story, 140 x 194 ft. steel and brick factory, to be erected by Smith Bros. for the manufacture of gum and cough drops; also for a 2-story steel and brick candy factory. Total cost, $140,000.

★**Rochester, N. Y.**—General contract to erect a machine shop, 48 x 110 ft., on Elser Terrace for Eisler Mfg. Co., 109 Haught St., awarded to S. Schwartz.

Camden, N. J.—Plans being prepared by Wm. Steel & Co., Philadelphia, Pa., for a 2-story, 120 x 600 ft. factory and a warehouse, 200 x 600 ft. brick and reinforced concrete, to be erected for the Campbell Soup Co., Camden.

Bristol, Pa.—Plans prepared by Heacock & Hokanson, Bailey Bldg., Philadelphia, for a 2-story brick, steel and reinforced concrete power house and coal storage building to be erected at the plant of the W. H. Grundy Co.

Philadelphia, Pa.—Bids are being received by Peuckert & Wunder, Archts. & Engrs., 310 Chestnut St., for erecting a 2-story engine room, boiler house and power plant on 36 St., south of Norris, for the Norris Market Ice Mfg. & Cold Storage Co. Building to be 38 x 80 ft., steel brick and concrete and fireproof construction.

Asheville, N. C.—Plans are being prepared by Lockwood, Greene & Co., 1127 Healey Bldg., Atlanta, Ga., for a warehouse, to be erected for the French Broad Mfg. Co.

Birmingham, Ala.—Reported that Jefferson Mosaic Flooring & Roofing Tile Co. contemplates erecting a plant here. Maj. W. F. Tillness, of Mobile, President of the National Mosaic Flooring & Roofing Tile Co., is interested.

Johnson City, Tenn.—The Hice Mfg. Co. intends rebuilding plant recently destroyed by fire, cost of new plant, $60,000.

★**Chicago, Ill.**—Contract for erecting for Armour Grain Co., in South Chicago, a sectional elevator reported awarded to Stewart Constr. Co., Chicago.

St. Paul, Minn.—Reported Equity Co-operative Exchange of Minneapolis intends removing to this city and will erect a flour mill.

Great Falls, Mont.—Amalgamated Copper Co. (J. D. Ryan, Pres.) reported to be planning the erection of a copper refinery here.

Galveston, Tex.—Plans being prepared for a 3-story addition to the plant of the Galveston Ice & Cold Storage Co. and which is to be of brick and cost $50,000.

Galveston, Tex.—Santa Fe R. R. (C. F. W. Felt, Ch. Engr. of System, Chicago, Ill.) reported to be planning erection of an elevator.

Pinos Altos, N. M.—Stauber & Wright, lessees of the Savannah Copper Co., reported to be planning the erection of a mill for the treatment of ore, costing $25,000.

Tacoma, Wash.—Dennett Milling Co., 2936 S. Ainsworth Ave., will erect an addition to the flour mill costing $25,000.

Wenatchee, Wash.—Wm. Turner, it is reported, plans erecting a warehouse and cold storage plant here costing $300,000.

Portland, Ore.—Reported plans have been prepared by J. G. Kelly, Chamber of Commerce Bldg., for a plant for the manufacture of products to be made by abstracting minerals from Lake Summer and Albert, which the Jason Moore Co. intends erecting here. Shepherd & Brock, Attorneys, Yeon Bldg., represent the company.

St. Johns, Ore.—Western Cooperage Co., Portland, Ore., intends erecting a manufacturing plant according to plans by L. R. Bailey, St. Johns.

San Francisco, Cal.—Seattle Brewing & Malting Co., Seattle, Wash., reported to be planning erecting a brewery here.

MISCELLANEOUS.

See also "Hydraulic Construction and River Improvements."
Items Arranged Geographically

Conduit — Boston, Mass.—Commissioner of Pubs. Wks. is considering construction of a concrete conduit for improvement of Fameuil Valley brook, 7 ft. and 2 ft. 6 in. diam., and a sanitary sewer of 12-in. earthen pipe and 7 catch basins in Faneuil and Oakland Sts., Brighton; estimated cost $21,288.

Filling Swamp Lands—New York, N. Y.—Following are the totals of bids opened Dec. 31 by Dept. Parks, for filling in swamp lands in southwest corner of Van Cortlandt Park, Bronx Boro.: Simon Russek, Inc., 261 Bway., $21,800; Van Cortlandt Contr. & Improv. Co., Inc., $14,951. Work will include 40,000 cu. yds. filling.

★**Broken Stone—Mt. Holly, N. J.**—Contract awarded Jan. 1 by Bd. Chosen Freeholders for furnishing broken stone to the county for the year 1915 to Lambertville Stone Quarry Co., Lambertville, at 76 cts. per net ton.

★**Wall — Philadelphia, Pa.** — Contract awarded by Dept. of Pub. Wks. to J. J. Hurley for constructing a low brick wall of Colonial design around Independence Square and removing present stone wall, at $11,000.

Steel Towers—Washington, D. C.—Bids desired until Feb. 27 at Bureau Yards and Docks, Navy Dept., Washington, D. C., for construction and erection of 3 600-ft. steel towers at San Diego, Cal.; Pearl Harbor, T. H., and Cavite, P. I.

Crane—Norfolk, Va.—Bids desired until Feb. 13 (extension of date from Jan. 16) at the Bureau Yards and Docks, Navy Dept., Washington, D. C., for Spec. 2092—A 150-ton capacity floating revolving crane for Navy Yard, Norfolk. Cost about $250,000.

Wilmington, N. C.—See "Paving and Roadmaking."

Cement—Kalamazoo, Mich.—Bids desired until Jan. 11 by C. L. Miller, City Clk., for 4,000 bbls. Portland cement.

Grand Stand—Madison, Wis.—The Athletic Dept. of Wisconsin University has recommended to the Regents the construction of a concrete grand stand at Camp Randall, with a capacity of 10,000; probable cost $53,000.

Pier—Milwaukee, Wis.—The Park Board reported to be considering construction of a pier for the proposed lake shore drive to Wisconsin St.; cost about $150,000.

Cement—Leavenworth, Kan.—Bids desired until Jan. 23 by Supt. of Prisons, Dept. Justice, Washington, D. C., for furnishing and delivering 4000 lbs. Portland cement for use in construction work at U. S. Penitentiary, Leavenworth.

Park—Redondo Beach, Cal.—See "Hydraulic Construction and River Improvement."

★**Cast Iron and Bronze Metal Work for Light Station — Alaska.** — Contract has been awarded on bids opened Dec. 10 by Commissioner of Lighthouses, Washington, D. C., to Champion Iron Co., of Kenton, at $8,136, for furnishing cast iron and bronze metal work, etc., for Cape St. Elias Light Station, Alaska.

Steel Dump Scows—Panama.—Bids desired until Feb. 10 by Maj. F. C. Boggs, Corps Engrs., U. S. A. General Purchasing Officer, Panama Canal, Washington, D. C., for three 1,000 yd. steel dump scows, according to Circular 883.

Steel Rails, Etc.—Melbourne, Australia.—Bids desired until Feb. 17 at Melbourne for equipment required by the Victorian railways, to consist of 3300 tons 100-lb. steel rails, 232 tons steel fishplates and 1000 corrugated signal lenses. For further information address Dept. Trade and Commerce, Ottawa, Ont. D. H. Ross, Commissioner, Melbourne.

Proposals

For Proposals Advertised see Page 46

WATERWORKS.

Bids Close		See Eng. Record.
Jan. 11.	Distributing System, New Boston, O. ..... Adv. Dec. 26.	Dec. 26
Jan. 14.	Wood Stave Pipe, Montrose, Colo.	Jan. 9
Jan. 15.	System, Kensington, Md. Adv. Dec. 19, 26.	Dec. 19
Jan. 15.	Exten. to System, Clearwater, Fla.	Jan 2
Jan. 18.	Pumps, Etc., Larned, Kan.	Dec. 19
Jan. 18.	Pump, Tarpon Springs, Fla.	Jan. 9
Jan. 18.	Pipe, Etc., Glendora, Cal.	Jan. 9
Jan. 18.	Equipment, Winnipeg, Man.	Jan. 2
Jan. 19.	Mains, Shaker Heights, O.	Dec. 26
Jan. 20.	Pumping Units, Phoenix, Ariz.	Jan. 9
Jan. 29.	Extensions, Columbia, S. C. ..... Adv. Jan. 9.	Jan. 9

SEWERAGE AND SEWAGE DISPOSAL.

Jan. 11.	Kalamazoo, Mich. ..... Adv. Jan. 9.	Jan. 9
Jan. 12	Sect. 18 (Northerly Portion), Newark, N. J. ..... Adv. Dec. 19 to Jan. 2.	Nov. 28
Jan. 12.	Buffalo, N. Y.	Jan. 9
Jan. 15.	Kensington, Md ..... Adv. Dec. 19, 26.	Dec. 12
Jan. 18.	Sandstone, Minn.	Jan. 2
Jan. 19.	Shaker Heights, O.	Dec. 26
Jan. 29.	Columbia, S. C. ..... Adv. Jan. 9.	Jan. 9

BRIDGES.

Jan. 12.	York, Neb.	Jan. 2
Jan. 12.	Great Falls, Mont ..... Adv. Dec. 12 to 26.	Dec. 12
Jan. 12.	Ada, Minn.	Dec. 26
Jan. 14.	Hastings, Neb.	Dec. 26
Jan. 15.	Ada, Minn.	Dec. 19
Jan. 15.	Laporte, Ind.	Jan. 9
Jan. 16.	Ellenville, N. Y.	Jan. 9
Jan. 18.	Pueblo, Colo.	Jan. 9
Jan. 19.	Wayne, Neb.	Jan. 9
Jan. 25.	Kearney, Neb.	Jan. 2
Jan. 28.	Ottawa, Ont.	Dec. 26
Feb. 3.	Chehalis, Wash.	Jan. 9

PAVING AND ROADS.

Jan. 12.	Indiana	Jan. 2
Jan. 13.	Galion, O.	Dec. 26
Jan. 13.	Bonners Ferry, Idaho	Jan. 2
Jan. 13.	Mt. Gilead, O.	Jan. 2
Jan. 13.	New York, N. Y.	Jan. 9
Jan. 13.	Belton, Tex.	Jan. 9
Jan. 15.	Edina, Mo.	Dec. 12
Jan. 16.	Chesterfield, N. J.	Jan. 2
Jan. 18.	Ottumwa, Ia.	Jan. 9
Jan. 19.	Shaker Heights, O.	Dec. 26
Jan. 19.	Sulphur Springs, Tex. ..... Adv. Dec. 26 to Jan. 9.	Dec. 26
Jan. 19.	Maryland	Jan. 9
Jan. 20.	Alexandria, Va.	Jan. 9
Jan. 22.	Texas	Jan. 2
Jan. 27.	Greenville, Tex.	Dec. 26
Jan. 27.	Flint, Mich.	Jan. 9
Jan. 28.	New Albany, Ind.	Jan. 9
Jan. 29.	Mt. Gilead, O.	Jan. 9
Jan. 30.	Louisiana	Jan. 9
Feb. 1.	Chehalis, Wash.	Jan. 9
Feb. 4.	Bay City, Ore.	Dec. 26

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Jan. 12.	Drainage, White Castle, La.	Dec 17
Jan. 12.	Ditch, Ada, Minn.	Dec. 26
Jan. 12.	Ditch, Edna, Tex.	Jan. 2
Jan. 12.	Ditch, St. James, Minn.	Jan. 9
Jan. 14.	Pier, San Francisco, Cal.	Jan. 9
Jan. 15.	Repairs to Breakwater, Stonington, Conn.	Dec. 12
Jan. 15.	Ditch, Ada, Minn.	Dec. 19
Jan. 15.	Dredging, Mooresville, N. C.	Jan. 2
Jan. 18.	Dredging, New York, N. Y.	Jan. 9
Jan. 19.	Pier, Michigan City, Ind. Adv. Dec. 26 to Jan. 9.	Dec. 26
Jan. 20.	Levee and Ditch Work, Quincy, Ill. ..... Adv. Dec. 26, Jan. 2.	Dec. 26
Jan. 20.	Ditches, Bemidji, Minn.	Dec. 26
Jan. 20.	Dredging, Baltimore, Md. Adv. Jan. 9.	Jan. 9
Jan. 20.	Centrifugal Pumps, Minidoka, Idaho	Jan. 9
Jan. 25.	Electrical Apparatus, Minidoka, Idaho	Jan. 9
Jan. 22.	Dredging, New York, N. Y. ..... Adv. Dec. 26 to Jan. 9.	Dec. 26
Jan. 23.	Structural Steel for Pier, Panama ..... Adv. Jan. 2.	Jan. 2
Jan. 26.	Lock and Dam, Maysville, Ky. ..... Adv. Dec. 26 to Jan. 9.	Dec. 26
Jan. 29.	Ditch, Stillwater, Minn.	Dec. 26
Jan 30.	Lock Gates, Wheeling, W. Va. ..... Adv. Jan. 2, 9.	Jan. 2
Feb. 2.	Contr. 28 — State Canal Wk., Albany, N. Y. ..... Adv. Jan. 9.	Jan. 9
Feb. 3.	Irrigation Wk., Payson, Utah ..... Adv. Jan. 9.	Jan. 9
Feb. 3.	Electric Hoist, Philadelphia, Pa. ..... Adv. Jan. 9.	Jan. 9
Feb 4.	Drain, Gonzales, La.	Jan. 2
Feb. 5.	Dam, etc., Harrisonburg, La. ..... Adv. Dec. 5 to 26.	Dec. 5
Feb. 10.	Irrigation, Oakdale, Cal.	Jan. 9
Feb. 24.	Valves, etc., for Dry Dock No. 1, Panama	Jan. 9
Feb. 24.	Pump, Plant for Dry Dock, Panama	Jan. 9
———	Piling, Concrete Wk., Etc., Buffalo, N. Y. ..... Adv. Dec. 12, 19.	Dec. 12

PUBLIC BUILDINGS AND SCHOOLS.

Jan. 11.	Ft. Leavenworth, Kan. ..... Adv. Dec. 19 to Jan. 9.	Dec. 19
Jan. 12.	Crooksville, O.	Dec. 19
Jan. 12.	Newark, N. J.	Dec. 26
Jan. 12.	Montpelier, O.	Dec. 26
Jan. 12.	Yorktown Heights, N. Y. Adv. Jan. 2, 9.	Jan. 2
Jan. 12.	Independence, Kan.	Jan. 9
Jan. 12.	Philadelphia, Pa.	Jan. 9
Jan 14.	Wilmington, N. C.	Dec. 26
Jan. 14.	Oklahoma City, Okla.	Jan. 2
Jan. 15.	Montreal, Que.	Nov. 28
Jan. 15.	Fresno, Cal.	Dec. 12
Jan. 15.	Gary, Ind.	Dec. 12
Jan. 15.	Anacostia, D. C. ..... Adv. Dec. 19	Dec. 19
Jan. 15.	Waldo, O.	Dec. 26
Jan. 15.	Atchison, Kan.	Jan. 9
Jan. 16.	Oklahoma City, Okla.	Jan. 2
Jan. 16.	Whitewater, Wis.	Jan. 9
Jan. 16.	Waldo, O.	Jan. 9
Jan. 18.	Madison, Wis.	Dec. 19
Jan. 18.	Ft. Strong, Mass.	Dec. 26
Jan. 19.	St. Louis, Mo. ..... Adv. Dec. 19, 26.	Dec. 19
Jan. 19.	Belleville, N. J.	Jan. 9
Jan. 20.	Duluth, Minn.	Jan. 2
Jan. 20.	New Britain, Conn.	Jan. 9
Jan. 20.	Boston, Mass.	Jan. 9
Jan. 21.	Ft. H. G. Wright, N. Y. Adv. Dec. 26 to Jan. 9.	Dec. 26
Jan. 21.	Binghamton, N. Y.	Jan. 9
Jan. 21.	Boston, Mass.	Jan. 9
Jan. 21.	Hackettstown, N. J.	Jan. 9
Jan. 22.	Uvalde, Tex.	Dec. 19
Jan. 22.	Boston, Mass.	Jan. 9
Jan. 25.	Ennis, Tex.	Dec. 26
Jan. 26.	McCook, Neb.	Dec. 26
Jan. 26.	Socorro, N. M.	Jan. 9
Jan. 27.	Washington, D. C. ..... Adv. Jan. 9.	Jan. 9
Jan. 29.	Chanute, Kan.	Dec. 26
Jan. 30.	Mohawk, N. Y.	Dec. 26
Jan. 31.	Bartow, Fla.	Jan. 2
Feb. 1.	Fresno, Cal.	Jan. 9
Feb. 4.	San Antonio, Tex.	Jan. 9
Feb. 8.	Tiffin, O.	Dec. 26
Feb. 16.	Cincinnati, O.	Dec. 12
Feb. 18.	Lincoln, Neb.	Jan. 9
Feb. 27.	Miles City, Mont.	Jan. 9
Mar. 1.	Champion, O.	Jan. 9
Mar. 6.	Lawton, Okla.	Jan. 9

PRIVATE BUILDINGS.

Jan. 15.	Baltimore, Md.	Jan. 2
Jan. 16.	Wellsville, O.	Jan. 9
Jan. 20.	East Liverpool, O.	Dec. 26
Jan. 15.	Toronto, Ont.	Jan. 9
Feb. 15.	New Castle, Pa.	Jan. 9
Mar. 25.	Wilmington, Del.	Jan. 9

MISCELLANEOUS.

Jan. 12.	Tower Clock, Danville, Va. ..... Adv. Dec. 19, 26.	Dec. 19
Jan. 12	Skylight for Patent Office Bldg., Washington, D. C. ..... Adv. Dec. 19, 26.	Dec. 19
Jan. 13.	Mail Handling Apparatus, Minneapolis, Minn.	Dec. 26
Jan. 15.	Elevator, Manchester, N. H.	Dec. 26
Jan. 16.	Garbage Disposal, Lansing, Mich.	Jan. 9
Jan. 18.	Crushing Machinery, Etc., Winnipeg, Man.	Jan. 2
Jan. 19.	Face Cutting for Stone, New York, N. Y. ..... Adv. Jan. 2.	Jan. 2
Jan. 19.	Street Cleaning, St. Louis, Mo.	Jan. 9
Jan. 21.	Mail Chute, Cleveland, O.	Jan. 2
Jan. 23.	Crane, Pearl City, T. H.	Dec. 26
Jan. 23.	Cement, Leavenworth, Kan.	Jan. 9
Feb. 10.	Steel Dump Scows, Panama	Jan. 9
Feb. 13.	Revolving Cranes, Norfolk, Va.	Jan. 9
Feb. 16.	Incinerator Plant, Toronto, Ont. ..... Adv. Jan. 9.	Jan. 9
Feb. 17.	Steel Rails, Etc., Melbourne, Australia	Jan 9
Feb. 17.	Railroads, Melbourne, Australia	Jan. 9
Feb. 27.	Steel Towers, Washington, D. C.	Jan. 9
———	Fire Alarm, Etc., Ladysmith, Wis. ..... Adv. Dec. 26 to Jan. 9.	Dec. 26

★*Items marked thus give the names of parties awarded contracts.*

NEW CONSTRUCTION ACTIVITIES

Eastern railroads continue in the market for rails and other supplies. The report of extensive improvements to be undertaken by the Baltimore & Ohio noted last week has been officially denied; but that road has ordered during the week $2,000,000 worth of rails and rolling stock. During the first full week of the new year orders for 80,000 tons of rails were placed, and further orders for 400,000 tons are expected during the month.

The Atlantic Coast Line and the Seaboard Air Line have also ordered 550 tons of structural steel for a joint bridge over the Cape Fear River. A further advance of $1 per ton on structural shapes, plates and bars is expected as a result of increased orders. Prices are still $5 to $6 a ton lower than normal. The December statement of the Steel Corporation indicates that orders were booked at 80 per cent of capacity, while shipments were made at 36½ per cent of capacity. The result was an increase of 512,000 tons in unfilled orders. The production of iron ore last year was the lowest since 1911, although stock piles have increased during the year. The production of pig iron last month was the lowest since 1908, while at the same time stocks of pig iron have increased slightly. The general impression is, however, that conditions are on the road to substantial improvement.

Buildings

The number of building contracts noted is larger than last week. Two fair sized contracts have been let at Baltimore, and one at Savannah, while plans are being prepared for about $700,000 worth of work. Bids are asked on a $400,000 fireproof high-school at Canton, Ohio, and on a number of other good-sized buildings. The $15,000,000 terminal project at St. Paul has reached the stage of having plans submitted to the city council; after approval by this body they must be sent to the Secretary of War before construction can be started.

Bridges and Paving

Bids are desired Feb. 23 on the Columbia River interstate bridge, but this is the only large bridge noted. Concord, N. H., and Portland, Ore., will shortly let contracts for some reinforced concrete bridge work, while Maryland has advertised for bids on two concrete bridges.

Work on roads and paving continues active, however. Bonds continue to be sold and some further new issues are contemplated. At Lockport, N. Y., and in Maryland bids on a considerable quantity of work are asked. In Ohio a number of contracts have been awarded, and at Knoxville, Tenn., a contract for macadamizing 80 miles of pike at a cost of $270,000 was signed.

Waterworks and Sewers

Fitchburg, Mass., desires bids on Feb. 8 for constructing a reservoir. Bids for contracts involving a considerable tonnage of cast iron pipe are asked, including work at Hawthorn, N. J., and Boston, Mass. Bids on another section of the Passaic Valley sewer were opened on Jan. 12. Bids for still another section of this sewer will be opened Feb. 2. Plans are reported complete for a $400,000 sewage treatment plant at Trenton, N. J.

Railroads and Miscellaneous

Little new railroad construction is in sight. A company has been incorporated at Vancouver for $300,000 to build a line into Portland over the new interstate bridge; and it is reported from St. Louis that the Springfield & Central Illinois Traction Company will start construction on a line from St. Louis to Terre Haute next summer. It is reported from California that the Salt Lake railroad has obtained a right-of-way through Government land between San Bernardino and Daggett, and will build 100 miles of line, to cost $4,000,000.

Bids are asked in Washington by the supervising architect of the Treasury Department on a central power station. One contract was awarded at $158,730 for a pier at the Brooklyn Navy Yard, and another for a $75,000 dock superstructure at Seattle. Bids are asked on levee work at Augusta, Ga. At Wilmington, N. C., bids were opened on a breakwater to be built at Cape Lookout, to cost several million. The lowest bid on a concrete wharf at Richmond, Cal., was $275,000.

WATERWORKS.

Items Arranged Geographically

Boston, Mass.—Bids desired until Jan. 20 by D. Frank Doherty, Comr. Supplies, for furnishing Pub. Wks. Dept., Water Service, the following: 200,000 lbs. 1C iron castings, to consist of 32,000 lbs. shoes, 57,000 lbs. main tubes, 80,000 lbs. sidewalk tops and 31,000 lbs. bottoms; 500,000 lbs. 1B iron castings, to consist of 185,000 lbs. hydrants, 50,000 lbs. hydrant posts and 265,000 lbs. gate stock; 500,000 lbs. IA iron castings, consisting of 225,000 lbs. branches, 60,000 lbs. reducers, 17,000 lbs. caps, 125,000 lbs. offset, 23,000 lbs. curves and 23,000 lbs. sleeves; furnishing iron castings, such as manhole and catchbasin frames and covers, catchbasin grates, tide gates, iron inlets, etc., as may be required between Mar. 1, 1915, and Jan. 31, 1916; 250,000 lbs. No. 2 iron castings, consisting of frames and covers; 12,000 lbs. No. 1, 45,000 lbs. No. 2 and 7000 lbs. No. 3 composition castings.

★Contract was awarded Jan. 6 by City Superintendent of Supplies for furnishing 3765 tons 4 to 30-in. pipe and about 200 tons special castings to Standard Cast Iron Pipe & Fdy. Co., Bristol, Pa., as follows: 4-in. pipe, $2.15 per ton; 6-in., $20.95; 8-in., $19.90; 10, 12, 16 and 24-in., $19.40; 30-in., $18.85; specials, $50 per ton.

Contract has been awarded by Comr. of Pub. Wks. to Merrimac Constr. Co., at $25,466, for constructing Dent St. Brook conduit, West Roxbury (bids opened Dec. 31). Next 3 lowest bids: West Roxbury Trap Rock Co., $25,758; Peter Bompiani Co., $28,008; Jas. J. Conway, $29,272.

Chicopee, Mass.—City will change over from steam driven to motor driven pumping. Chas. A. Bogardus, Supt.

Fitchburg, Mass.—Bids desired until Feb. 8 by Bd. Water Comrs. (Thos. P. Sheldon, Pres.) for constructing Ashby reservoir, advertised in Engineering Record. Principal items of work approximately as follows: Clearing and grubbing 60 acres; earth excav. 54,000 cu. yds.; rock excav. 4700 cu. yds.; concrete masonry 3000 cu. yds.; steel reinforcing bars 210,000 lbs.; 5500 sq. yds. stone paving. Metcalf & Eddy, Engrs., 14 Beacon St., Boston.

East Hartford, Conn.—City will expend about $30,000 for a new dam and other extensions. John H. Walsh, Supt.

Albany, N. Y.—Bids desired until Jan. 18 by Isidore Wachsman, Secy. Bd. Contract & Supply, for furnishing and delivering c. i. water pipe and special castings for the Bureau of Water, and for asphalt pavement repairs for the Bureau of Streets.

Barker, N. Y.—Geo. E. Landy, Pres. Village Trus., writes that it is proposed to construct water works to cost about $30,000. Engineer, Chas. Hopkins, Rochester.

Contracting News

Of Special Interest to Engineers, Contractors, Builders and Manufacturers of Engineering and Building Supplies

Batavia, N. Y.—D. W. Tomlinson, Sr., and R. E. Chapin has been appointed by the Common Council on a pure water commission to have charge of installing a pure water supply for the city of Batavia by filtering water of the Tonawanda Creek by mechanical devices.

Bedford Hills, N. Y.—Bids desired until Jan. 29 by Jas. Wood, Pres. Bd. Mgrs. N. Y. State Reformatory for Women, Bedford Hills, for new large open well at Reformatory for Women, advertised in Engineering Record. Lewis F. Pilcher, State Archt., Albany.

★**Buffalo, N. Y.** — Contract reported awarded to the Buffalo Electric Contr. Co. for installation of electric plant at Porter Ave. pumping station at $48,900. The John W. Danforth Co. submitted lowest bid for the steam fitting in connection with plant at $8,984.

Buffalo, N. Y.—Bids desired until Jan. 21 (readvertisement) by State Hospital Comn., Albany, (E. S. Elwood, Secy.), for water softening plant at Buffalo State Hospital. Lewis F. Pilcher, State Archt., Albany.

Glens Falls, N. Y.—A new intake dam at one of the reservoirs is contemplated. E. W. Smith, Supt.

Newark, N. Y.—It is proposed to install a centrifugal pump, 1,080,000 gal., 200 ft. head; air compressor, 10 x 12 ft. and automatic steam engines, 125 hp. S. Starth, Supt.

Pulaski, N. Y.—It is proposed to replace water turbines with electric motors. S. W. Holmes, Supt.

Rochester, N. Y.—City will lay about 20 miles of 36-in. c.-i. pipe to increase supply, and also about 8 miles of 6 to 36-in. c.-i. distribution system. Beekman C. Little, Supt. Water Bureau.

Waverly, N. Y.—Citizens voted $22,500 to raise upper dam. Fred S. Smith, Supt.

★**Atlantic City, N. J.**—Contract for water works improvements (bids opened Dec. 31) has been awarded to Edw. L. Bader, Bartlett Bldg., Atlantic City, at a total of $20,367. Work includes deepening a 25-ft. circular well 10 ft. and lining with concrete, enlarging and lining with concrete canal basin, 260 x 100 ft.; 920 ft. 48 in. conduit with by-pass chambers, one regulating chamber, furnishing three 48-in. sluice gates with stands, and furnishing two 48-in. sluice gates without stands.

Hawthorne, N. J.—Bids desired until Jan. 29 by Borough Comrs. for about 3150 ft. 14-in., 12,460 ft. 12-in., 20,900 ft. 8-in. and 47,180 ft. 6-in. c. i. pipe, amounting to approximately 2174 tons c. i. pipe and branches, advertised in Engineering Record. John A. Shea, Boro. Clk.; H. J. Harder, Engr., Paterson.

Gallitzin, Pa.—Plans are now being prepared by D. W. Dillman, Altoona Trust Bldg., Altoona, for construction of water works; cost about $50,000.

Indiana, Pa.—A new pumping station contemplated by Clymer Water Co. (W. S. Hamilton, Supt.)

Media, Pa.—City contemplates certain improvements to filtration system. Edw. Menton, Supt.

Philadelphia, Pa.—Bids desired until Feb. 9 by Dept. Pub. Wks., Bureau of Water, Room 216, City Hall (C. E. Davis, Ch. Bureau), for a sedimentation basin at Torresdale filters, advertised in Engineering Record.

★**Baltimore, Md.**—Contract for pumping machinery for Upper Service Pumping Station, Contract 30 (bids opened Dec. 30) has been awarded to R. D. Wood & Co., Philadelphia, Pa., at $3,697. Robt. L. Clemmitt, Acting Water Engr.

Moorefield, W. Va.—City contemplates installation of meters.

St. Marys, W. Va.—City will construct a reservoir to cost about $8,000. J. H. McBride, City Recorder.

Eastover, S. C.—Bids desired until Jan. 18 by Clerk Bd. Pub. Wks. for a steel hemispherical bottom water tank with plate roof and 6-in. brass expansion joint, capacity 25,000 gals.; an 80-ft. steel tower with 24-in. metal balcony and metal ladder; 1 12-in. hp. throttling governor kerosene engine, geared base, with deep-well working head; 2370 lin. ft. 8, 6 and 4-in., Class A, c.-i. pipe or Mathewson lock joint, 2626 ft. 2-in. g.-i. pipe or Mathewson lock joint, 2000 ft. 1-in. g.-i. pipe, 21 8 to 1-in. gate valves and valve boxes, etc. E. N. Chisholm, Jr., Engr., Clark Law Bldg., Columbia.

★**Seabreeze, Fla.**—Contracts for constructing waterworks (bids opened Dec. 29) awarded as follows: To American C. I. Pipe Co., Birmingham, Ala., 6-in. pipe, $23.10 per ton and 8-in., $22.60, and castings, $55 per ton; to F. S. Berham, Jacksonville, for hydrants and valves and also laying pipe; and to Cameron & Barkley, Jacksonville, for furnishing the T's. Engineer C. M. Rogers, Daytona.

Vicksburg, Miss.—At the present time city is negotiating with the Vicksburg Water Works Co. for purchase of its plant. It has not yet been decided whether city will build a new plant or buy old plant and make necessary improvements in order to enlarge capacity. C. R. Twiss, City Engr.

Louisville, Ky.—The Water Co. reported to be considering laying a 48-in. main from river pumping station to Crescent Hill reservoir; cost $175,000; after main is laid the Water Co. will construct a new river pumping station and additional pumps.

Brewster, O.—Bonds in the sum of $21,000 reported sold for the construction of water works.

Chicago Junction, O.—City proposes to install a 2,000,000-gal. crank and fly wheel pump and a crank and fly wheel air compressor. Robt. B. Smith, Supt.

Columbus, O.—Bids desired until Jan. 21 by Geo. A. Borden, Dir. Pub. Service, for furnishing and delivering 180 tons c.-i. pipe and 130 tons special castings.

★**Cleveland, O.**—Contract for turbine driven centrifugal pumps for the Division St. filtration plant has been awarded to Dravo-Doyle Co., Philadelphia, Pa., at $125,000.

Springfield, O.—Bids desired until Feb. 6 by Bldg. Comn. for Infirmary Buildings (Geo. McCord, Pres.) at office of County Auditor, Springfield, for furnishing material and installing well and cistern water supply by means of deep well and suction pumps and compression tanks at new County Infirmary buildings and laundry building, Bethel Township. Robt. C. Gotwald, Archt., Gotwald Bldg.

Wooster, O.—City Council considering construction of water purification plant; cost about $125,000.

★*Items marked thus give the names of parties awarded contracts.*

Toledo, O.—Bids will probably be received in March for high-pressure pumping station, to include 4 motor-driven centrifugal pumps, capable of delivering each 2000 gals. per minute against a head of 700 ft.; cost $200,000. Engineers, The W. J. Sherman Co., Toledo.

Woodsfield, O.—Contract will be let in the Spring for a 30,000-gal. mechanical filtration plant for Woodsfield Water Co., (R. W. McKinney, Genl. Mgr.); estimated cost, $7,000.

Zanesville, O.—The W. J. Sherman Co., The Nasby, Toledo, has been retained by city to prepare plans and specifications for proposed improvements to the municipal water supply and pumping station.

Columbia City, Ind.—City considering installation of a new pump. F. T. Schultz, Supt.

★**South Bend, Ind.**—Contract awarded Dec. 30 for c.-i. water pipe and specials for use water works for year 1915 to Lynchburg Fdy. Co., Lynchburg, Va., at $21.70 per ton for pipe and 2½ cts. per lb. for specials.

Washington, Ind. — The Washington Water, Light & Power Co., 405 E. Main St. (Robt. L. Engle, Supt.), contemplates installing a new centrifugal pump and constructing 2 new filter beds.

Redford, Mich.—Bids desired until Feb. 1 by John Venus, Village Clk., for furnishing material and constructing a system of water works, advertised in Engineering Record. Russell A. Murdock, Engr., 706 Free Press Bldg., Detroit.

Anna, Ill.—Bids desired by E. S. Alden, Pres. Bd. Local Improv., until Feb. 3 for 11,278 ft. 4, 6 and 8-in. c.-i. pipe, 14 hydrants, and 17 valves and boxes; estimated cost $8,000.

Joliet, Ill.—Bids reported desired until Feb. 1 by Henry Odenthal, City Clk., for constructing reservoir.

Kewanee, Ill.—City contemplates bonding in about 4 months for rebuilding pumping station and drilling wells. C. A. Dunbar, Supt. and Comr.

Paris, Ill.—This city contemplates constructing reservoir and filtration plant; cost $90,000. C. H. Lamb, City Engr.

Clintonville, Wis.—It is proposed to install a centrifugal pump, 144,000 gal. direct-connected to 3-phase, 2200-volt motor. Geo. D. Stewart, Supt.

Keewatin, Minn.—A return air system of 504,000 gal. capacity will be installed at a cost of about $5,000. Chas. B. Adams, Supt.

New Elm, Minn.—City will install new pump head at a cost of about $3,500, contract for which will be let during February, together with 60-hp. motors. A. J. Mueller, Supt.

Preston, Minn.—City will install a centrifugal pump to cost about $1,200. O. A. Watts, Supt.

Alliance, Neb.—City will construct a 500,000-gal. reservoir and install a pump of 1,440,000-gal. capacity. J. E. Hughes, Supt.

Spencer, Neb.—City proposes installing a new pumping engine and about 1000 ft. of 4-in. main. Frank Keenan, Water Comr.

Fairview, Mont.—Question of constructing water works and a sewer system reported under consideration by Council; cost about $40,000.

★**Hardin, Mont.** — Contract reported awarded to Security Bridge Co., Minneapolis, Minn., for completing water system at $26,466.

Slater, Mo. — A franchise has been granted to T. C. Brooks & Son to furnish water for a period of 20 years. Construction has not yet been started, but will include a pipe line to Missouri River about 8 miles in length. L. E. Shepherd, Supt.

St. Louis, Mo.—Bids desired until Jan. 22 by Bd. Pub. Service for general and detail drawing and erecting, complete, in place at H. S. Station No. 2, Bissell's Point, a 20,000,000-gal. steam turbine driven centrifugal pump with all appurtenances.

Rector, Ark.—Bids desired until Feb. 3 by J. C. Rogers, Chmn. Bd. Comrs., Water Wks. Improv. Dist. No. 1, for $29,000 water works and $27,000 sewer bonds, advertised in Engineering Record.

Bids will be received same time and place as above for 10-in. wells, advertised in Engineering Record. Frank L. Wilcox, Consulting Engr., Syndicate Trust Bldg., St. Louis, Mo.

Sweetwater, Tex.—Bids desired until Jan. 20, separately, for steel standpipe, gravity conduit and water works materials as follows: Bids, including plans and specifications, for furnishing and erecting a 250,000-gal. capacity cylindrical steel standpipe, 28 ft. in diam. and 60 ft. high. Concrete base will be constructed by city; constructing a 12-in. diam. c.-i. gravity conduit from Lake Tramell to Sweetwater, 6¾ miles. Engineer's estimate $16,000, not including pipe, which has been purchased by city; furnishing approximately 60 iron body, hub ends, gate valves, 4 to 12 in.; 1500 water meters, 1500 Mueller corporation cocks, 50 fire hydrants, etc. For further information address W. H. Bartlett, City Secy.

Cordell, Okla.—City will sell $75,000 water bonds Jan. 18, and contract for improvements will be let latter part of January. T. B. Wolford, Supt.

Hugo, Okla.—City will probably install during coming year a chlorine treatment plant. H. G. Hixson, Supt.

Red Rock, Okla.—Benham Eng. Co., Oklahoma City, Okla., has completed estimates for municipal water works. Election to vote $22,000 bonds for construction will be held Jan. 28.

Walter, Okla.—City contemplates installation of 150-hp. Corliss engines and a 100-kw. dynamo. Will probably have to go to Cache Creek, 12 miles away, for additional water supply, which will necessitate a filtering well or reservoir. H. A. Grimes, Comr.

Yale, Okla.—E. A. Pierson, Clerk Town Bd., writes citizens voted Dec. 31 to issue $32,000 bonds for extensions to water works and electric light plant.

Seattle, Wash.—A. H. Dimock, City Engr., with approval of Council, decided to try puddling as a means of stopping leakage through north of gravel bank of Cedar River at Camp 2, masonry dam, a part of Seattle's Municipal Lighting System; cost of work, according to City Engineer, will be between $50,000 and $100,000. City Council has authorized an appropriation of $15,000 for beginning the puddling experiment.

Baker, Ore.—We are informed that proposed work will include improvements to water works and construction of hydro-electric plant for residence lighting to consist of steel penstock, impulse wheel, generator, 20 miles distribution wires and poles, 3,000,000-gal. reservoir, 13 miles 12 to 18-in. mountain conduit lines; cost about $190,000. Engineer, L. R. Stockman, of Baker.

Portland, Ore.—It is reported that the Western Land & Irrigation Co., of Portland, will spend about $250,000 in construction of reservoir and irrigation ditches in Umatilla County, near Echo. Plans and specifications are practically completed and it is stated work will begin in the early spring.

San Diego, Cal.—Maj. Herbert Fay, Supt. Water Dept., writes that water works improvements, contracts yet to be let, include construction of Bonita Pipe line, construction of 15,000,000 gal. reservoir adjacent to city limits, and a 30-in. main connecting reservoir with distributing system.

Aurora, Ont.—Citizens voted Jan. 4 to issue $8,000 bonds for water works.

Ottawa, Ont.—Citizens voted Jan. 4 to issue $240,000 bonds for water mains.

Port Dalhousie, Ont.—Citizens reported to have voted Jan. 4 to issue $50,000 bonds for construction of water works.

SEWERAGE AND SEWAGE DISPOSAL.

Items Arranged Geographically

Boston, Mass.—Bids desired until Jan. 18 by L. K. Rourke, Comr. Pub. Wks., for cleaning about 7700 catchbasins.

Windsor Locks, Conn.—Sewer bonds in the sum of $50,000 were sold Jan. 6.

Huntington, L. I., N. Y.—Vincent Ford, Chmn. Sewer Com., writes that the Town Board Jan. 8 adopted an order providing for the establishment of sewer district; cost $98,000. Engineer, Geo. W. Fuller, 170 Bway., New York.

Rochester, N. Y.—Edwin A. Fisher, City Consulting Engr., is reported to be completing plans for construction of an auxiliary sewage disposal plant, to be constructed in the Brighton section; cost about $80,000.

Hackensack, N. J.—The Hackensack Improv. Comn. is reported to be considering construction of a sanitary sewer system and disposal plant.

Jersey City, N. J.—W. C. Mallalieu, of Jersey City, engineer in charge of disposal field work, writes that sewage disposal works are proposed, but work is only in a preliminary stage.

Newark, N. J.—Bids desired until Feb. 2 by Passaic Valley Sewerage Comrs, (Wm. M. Brown, Ch. Engr.) Essex Bldg., Newark, for constructing the southerly portion of Sect. 18 of the main intercepting sewer, in city of Paterson, advertised in Engineering Record. Work includes the River Route and the Tunnel Route.

★Contracts were awarded Jan. 12 by Passaic Valley Sewerage Comrs. as follows: **Sect. 14.** Constructing main intercepting sewer, open trench and tunnel (bids opened Dec. 22), awarded to Cenedella & Co., Milford, Mass., at $160,741. Unit prices in Engineering Record Jan. 2. **Sect. 18.** Central portion main intercepting sewer in city of Paterson, to Mason, Hilton & Co., New York, $158,450. Unit prices in Engineering Record Jan. 9.

Trenton, N. J.—Plans are reported completed by Hering & Gregory, New York, for the proposed sewage pumping station and disposal plant; cost about $400,000.

Wilmington, Del.—City Council is reported to have adopted ordinance authorizing a loan of $75,000 for special street and sewer improvements, and the same has been referred to Mayor Howell for consideration.

★**Baltimore, Md.**—Following are the bids opened recently by the Sewerage Comn. on Sanitary Contract 143, covering Sect. 7, West Low Level Interceptor: Smith & Ruggles, $29,754 (awarded contract); M. O'Herron & Son, $30,175; Ryan & Reilly Co., $30,315; Jas. Ferry & Sons, $34,858; Carezza Bros. & Co., $39,252 (bidders all of Baltimore).

★Contract reported awarded for constructing lateral sewers in Northeast Baltimore to Ryan & Reilly, Baltimore, at $81,515.

Morehead City, N. C.—It is proposed to construct a sewerage system in about 4 months; estimated cost $20,000. F. L. Royal, Engr.

Augusta, Ga.—See "Hydraulic and River Improvement."

Caruthersville, Ga.—See "Water Works."

Daytona, Fla.—Bids desired until Jan. 21 by Bd. Pub. Wks. (E. M. Condit, Secy.) for $150,000 sewerage and drainage bonds.

West Palm Beach, Fla.—All bids opened Jan. 5 by City Council for constructing 1600 ft. 8-in., 3360 ft. 10-in., 1315 ft. 12-in. sanitary sewers, 43 manholes, 19 automatic flush tanks, etc., have been rejected and new bids will be called for. J. B. McCrary Co., Engrs., Atlanta, Ga.

Brewster, O.—Bonds in the sum of $16,000 reported sold for construction of sewer system.

★**Cleveland, O.**—Contract has been awarded by Comrs. Purchases and Supplies for constructing sewer in E. 93d St. outlet, from Carr Ave. N. E. to Lake Erie, to Walter P. Gibbons, at $48,823 (bids opened Dec. 31).

Council is reported to be considering the expenditure of $100,000 for sewering Dugway Brook and $55,000 for a sewer in E. 93d St.

Hamilton, O.—City Council reported to have decided during the coming year to pave certain streets and construct storm and sanitary sewers to an approximate cost of about $500,000.

Springfield, O.—Local press reports state that work will probably be started in February on the construction of the high level sewer extension.

Zanesville, O.—City Council reported to be considering construction of sewer in 7th Ward; cost $100,000.

★**Ft. Wayne, Ind.**—Contract reported awarded by Bd. Pub. Works. Jan. 7 to S. G. Sheets Co., of South Bend, at $38,531, for constructing main sewer in southeastern section of city. The C. E. Moellering Constr. Co. also bid for the work $38,881. Engineer's estimate $39,215.

Indianapolis, Ind.—Plans have been prepared for main sewers, to cost about $350,000. Chas. A. Brown, Asst. City Engr., in charge of sewers.

Grand Rapids, Mich.—Local press reports state that an expenditure of $750,000 will probably be necessary to make changes in the city sewer system. Address Bd. of Pub. Wks.

Rockford, Ill.—Bids desired until Jan. 27 by W. W. Bennett, Pres. Bd. Local Improv. for constructing the Southeast End Sewer Dist., advertised in Engineering Record. Approximate quantities: 58,259 ft. 9, 10, 12, 15, 18, 20, 24, 27, 30, and 33 in. pipe, 49 ordinary manholes, 41 combination manholes, 33 lampholes and 10 flushtanks.

Champaign, Ill.—Chamber of Commerce is reported to have endorsed the movement looking to construction of sewer system.

Kenwood, Ia.—City Council reported to be considering construction of sewage disposal plant, to cost about $25,000.

Ogden, Ia.—City proposes installing sewer system in near future. P. J. Casserly, Supt.

★**Alice, Minn.** — Contract reported awarded to Butler & Coons, of Hibbing, for constructing sewer system; cost about $50,000.

Valley Falls, Kan.—Bids desired by Geo. Harman, City Clk., until Feb. 1 for furnishing material and constructing lateral sewers in city, main sewers inside and outside city and a sewage disposal plant. Worley & Black, Engrs., Reliance Bldg., Kansas City, Mo.

Fairview, Mont.—See "Water Works."

Rector, Ark.—See "Water Works."

Afton, Okla.—Benham Eng. Co., Oklahoma City, are preparing plans for constructing sanitary and storm system. Election to vote $37,000 bonds for the work will be held Jan. 21.

Portland, Ore.—The lowest bid opened Dec. 29 by City Council for constructing Willow St. extension of E. Stark St. trunk sewer reported submitted by Wm. Lind at $173,083.

Giebisch & Joplin, Rothchild Bldg., reported to have submitted the only bid for reconstruction of East Alder St. or Sunnyside trunk sewer, from near Grand Ave. to Willamette River, at $23,969.

Bakersfield, Cal.—Bids reported desired until Jan. 20 by A. G. Jones, City Clk., for constructing approximately 12,730 ft. 6, 8 and 10 in. clay pipe sewers, etc., in alleys north of Pacific, Quincy, Flower and other streets and east and west of Baker St.

Huntington Beach, Cal.—City Engr. has plans and specifications about completed for the second unit of the main sewer system, and contract will soon be let. Work is under way on the first unit.

San Diego, Cal.—City Council reported to be considering letting of new contract for completing Ocean Beach sewer.

Moscow, Idaho.—Plans reported completed by City Engineer for constructing 3 miles of lateral sewers; bids will be called for at once.

Toronto, Ont.—Bids desired until Jan. 19 by H. C. Hocken (Mayor), Chmn. Bd. Control, for constructing sewers in portions of Glenmount Park Rd., Brookside Drive, Gibson Ave., Beachview, Crescent and several other streets; also constructing Sect. 2, High Level Interceptor.

Vernon, B. C.—City Council reported to be considering enlargement of sewage disposal plant and construction of an underdrainage system.

Vernon, B. C.—City Council reported to have authorized plans for extensions to sewerage system, to cost about $100,000.

Newark, N. J.—Following are bids opened Jan. 12 by Passaic Valley Sewer Comrs. for Sect. 18, northerly portion main intercepting sewer in the city of Paterson: (a) Dock Contractor Co., Hoboken, $178,730; (b) N. Y. & N. J. Constr. Co., Newark, $187,160; (c) Cenedella & Co., Milford, Mass., $188,770; (d) Henry E. Fox Constr. Co., New York, $193,150; Fusco Constr. Co., Newark, $219,520; Merrill-Ruckgaber Co., New York, $326,460.

Unit prices of 4 lowest bidders, a, b, c and d:

	(a)	(b)	(c)	(d)
2,920 lin. ft. earth excav. and refill, in trench, for 45-in. concrete sewer	$29.00	$25.00	$29.00	$32.00
1,720 lin. ft. earth excav. and refill, in trench, for 57-in. concrete sewer	30.00	33.00	31.00	32.00
160 lin. ft. earth excav. and refill, in trench, for 65-in. concrete sewer	30.00	40.00	33.00	32.00
7,000 cu. yds. rock excav., in trench	.01	.01	1.50	1.00
3,200 cu. yds. concrete masonry with Portland cement mortar, in trench	9.00	12.00	9.25	8.00
100 cu. yds. brick masonry, laid with Portland cement mortar, including appurtenant work	20.00	15.00	20.00	20.00
Reconstruct local sewers, including all appurtenant work and expense (lump sum)	6,750.00	11,000.00	3,340.00	4,900.00
1,000 lbs. steel for concrete reinforcement, in place	.03	.03	.05	.05

Lockport, Ill.—A. S. Calkins, City Engr., writes following are the bids opened Jan. 7 for constructing sewer system: (a) Yale & Reagen, Chicago, Ill., $59,951; (b) Robt. Shannon, Joliet, $61,243; (c) J. B. Sheels Constr. Co., Pittsburgh, Pa., $61,716; (d) Public Service Constr. Co., Omaha, Neb., $67,347.

	(a)	(b)	(c)	(d)
680 lin. ft. 30-in. standard sewer pipe	$2.50	$2.27	$1.92	$2.54
100 lin. ft. 24-in. double strength sewer pipe	1.31	1.55	1.25	1.75
3,750 lin. ft. 24-in. standard sewer pipe	1.00	.98	.92	1.25
2,318 lin. ft. 18-in. standard sewer pipe	.625	.62	.60	.77
4,539 lin. ft. 15-in. standard sewer pipe	.45	.47	.45	.57
5,863 lin. ft. 12-in. standard sewer pipe	.35	.34	.35	.45
22,294 lin. ft. 10-in. standard sewer pipe	.25	.28	.28	.32
9,325 lin. ft. 8-in. standard sewer pipe	.18	.19	.23	.22
90 lin. ft. 14-in. c.-i. water pipe	2.05	1.95	2.00	2.40
72 lin. ft. 12-in. c.-i. water pipe	1.75	1.20	1.50	2.25
36 lin. ft. 10-in. c.-i. water pipe	1.40	1.15	1.14	1.30
36 lin. ft. 8-in. c.-i. water pipe	1.00	.95	.87	1.00
36 lin. ft. 4-in. c.-i. water pipe	.75	.58	.46	.75
10,925 lin. ft. excav. under 6 ft. deep	.28	.18	.20	.20
18,718 lin. ft. excav. 6 to 8 ft. deep	.30	.30	.28	.30
15,460 lin. ft. excav. 8 to 10 ft. deep	.40	.47	.50	.40
3,490 lin. ft. excav. 10 to 12 ft. deep	.75	.88	.95	.63
1,112 lin. ft. excav. 12 to 14 ft. deep	1.20	1.15	1.50	.94
40,000 ft. rock excav. trench 1 ft. deep	.23	.24	.24	.30
195 concrete manholes	31.00	32.00	32.00	35.00
198 concrete catchbasins	30.00	30.00	28.00	35.00
3 Miller double-discharge automatic flush tanks	65.00	65.00	75.00	70.00
9 combination maholes and automatic flush tanks	65.00	65.00	75.00	70.00
25 cu. yd. gravel concrete	15.00	7.00	6.50	10.00

★*Items marked thus give the names of parties awarded contracts.*

BRIDGES.

Items Arranged Geographically

Concord, N. H.—Bids desired by W. B. Howe, City Engr., until Jan. 23 for constructing 4 bridges as follows: Three spans, two 154 ft. 1½ in.; one 132 ft., riveted trusses, concrete slab floor; 2 spans, one 166 ft. 10½ in., one 164 ft. 10½ in., riveted trusses, plank floor; 1 Pony truss, 91 ft. 1½ in., riveted trusss, concrete floor plank sidewalk; 3 plate girder spans 62 ft. 9 in. ea., concrete floor, and 2 walks with concrete floors.

Northampton, Mass.—Hampshire County Comrs. received from J. R. Worcester & Co., Engrs., Boston, estimates of cost for constructing bridge over Connecticut River. Bridge 30 ft. wide, with 2 sidewalks, iron construction, covered with cement blocks with wood block floor, cost $243,000; similar bridge, 20 ft. wide, cost $189,000.

Bridgeport, Conn.—A. H. Terry, City Engr., estimates cost of constructing 50 ft. steel bridge at Grand St., at $232,000.

Leesport, Pa.—Plans being prepared by D. K. Hoch, 119 Walnut St., Reading, for construction of a bridge over Schuylkill River at Leesport.

★**Philadelphia, Pa.**—Contract awarded on bids opened Dec. 28 for repairing and painting bridges to Paul J. Snyder & Co., Philadelphia, as follows: 33d St., over P. R. R., at $2,185, and Callowhill St., over Schuylkill River, at $9,969.

★**Pittsburgh, Pa.**—Contract was awarded Dec. 30 for building steel superstructure for Sylvan Ave. bridge to McClintic Marshall Co., Pittsburgh, at $44,725. Robt. Swan, Dir. Dept. Pub. Wks.

Bids desired until Jan. 25 by E. S. Morrow, City Controller, for new steel portals and other repairs to the Smithfield St. Bridge.

Baltimore, Md. — See "Paving and Roads."

Maryland.—Bids desired until Jan. 19 by State Roads Comn. (Wm. L. Marcy, Secy.), 601 Garrett Bldg., Baltimore, for Contracts Bc-17 Sects. 7 and 8, Baltimore City, for constructing across the main branch of the Patapsco River, between Baltimore and Anne Arundel Counties, one reinforced concrete bridge, 16 30 ft. and one 32 ft. spans, girder construction, and 1 reinforced concrete bridge 7 15 ft. spans, girder construction, advertised in Engineering Record.

Bradentown, Fla.—Bids desired until Jan. 22 by W. H. Tracy, Comr. Pub. Wks., for furnishing material and constructing complete one lift bridge, including substructure, advertised in Engineering Record. Scherzer Rolling Lift Bridge Co., Chicago, Engrs.

Tampa, Fla.—War Dept. at Washington authorized Atlantic Coast Line (E. B. Pleasants, Ch. Engr., Wilmington, N. C.) to construct steel bridge over Hillsborough River at Cass St. Plans provide for a hascule type structure.

★**Lake Charles, La.**—Contract for constructing 60 small bridges west of river was awarded by police jury to Harrison & Balm, Memphis, for about $40,000.

★**Greenville, Miss.**—Contract for constructing 18 steel bridges of from 32 to 70-ft. span in Bogue Phalia Drainage Dist. was awarded Jan. 4 to W. T. Young Bridge Co., Nashville, Tenn., for $8,928. Morgan Eng. Co., Memphis, Tenn., Engineers for the district.

★**Memphis, Tenn.**—Contract for constructing underpass at Auction Ave. and North Memphis levee has been awarded by Bd. City Comrs. to Noll Constr. Co., Chattanooga, at $5,373.

Barberton, O.—See "Railroads."

Columbus, O.—Bids desired until Feb. 5 by County Comrs. for constructing Brand reinforced concrete bridge over north fork of Indian Run, Washington Township; also constructing approaches to Williams Bridge, Perry, Norwich and Franklin Townships.

Zanesville, O.—Bids desired until Feb. 1 by County Comrs., Zanesville (F. C. Werner, Clk.), for furnishing material and constructing steel superstructure over canal towpath between Trinway and Adams Mills, Cass Township, known as Graham Bridge. Said bridge shall consist of single span, 51 ft., from c. to c. and 12 ft. clear roadway.

Indianapolis, Ind.—Plans being prepared by B. J. T. Jeup, City Engineer, for constructing concrete bridge, faced with stone, 300 ft. long, over Fall Creek at Meridian St.

Detroit, Mich.—Plans being prepared by Cass Gilbert, 11 E. 24th St., New York City, N. Y., for constructing Belle Isle Bridge.

Escanaba, Mich.—Bids desired until Jan. 22 by Frank F. Rogers, State Highway Comr., Lansing, for constructing 3 concrete piers for present bridge crossing Whitefish River, near Rapid River, Masonville Township, Delta County. R. P. Mason, Co. Engr., Escanaba.

Forrest, Ill.—E. J. Allen, County Surveyor, Forrest, writes it is proposed to construct a bridge over Vermillion River 3 miles from Pontiac, to be of concrete on concrete foundation, have 3 spans, width 56 ft.; cost $10,000. Engineer, R. W. Osborn, of Pontiac.

Granite City, Ill.—See "Private Buildings."

Greenville, Ill.—Bids desired until Jan. 26 at Town Clerk's office, Greenville, for constructing Mill Hill Bridge, Central Township, reinforced concrete structure, to consist of 2 spans, 50 ft. each, 18 ft. roadway. Engineer's estimate, exclusive of earth fill, $6,450.

Mason City, Ia.—Bids will probably be received in February for construction of concrete deck girder bridge on rock foundation over Calmus Creek on N. Main St.; cost about $4,500; bids will also be received on small bridges to cost about $20,000. R. E. Robertson, Co. Engr.

Salina, Kan.—Bids reported desired until Feb. 1 by County Comrs. for constructing concrete bridge over Smoky River at Iron Ave. Probable cost $30,000.

Miller, S. D.—D. A. Lewis, Co. Aud., writes all bids opened Jan. 8 for constructing bridges including arch bridge, concrete bridges, steel bridges or concrete slab bridges and concrete box culverts for the year 1915 have been rejected.

★**Pawnee, Okla.**—Contract awarded by Pawnee County for construction of a steel bridge to Oregonia Bridge Co., of Oklahoma City.

★**Hoquiam, Wash.**—Contract for constructing superstructure of drawbridge over Hoquiam River awarded by Northern Pacific Ry. Co. to McCreary & Williard, Hoquiam. Structure to have 256 ft. steel draw span, 70-ft. truss span and 90-ft. decking.

Seattle, Wash.—Bids desired until Jan. 25 by County Comrs. for constructing steel and concrete bridge on road between Seattle and Sunnydale.

Portland, Ore.—County Comrs. are about to let contracts for constructing 3 reinforced concrete bridges on Columbia Highway. Girder bridge over Pierce Creek 360 ft. long with 9 spans each 40 ft.; concrete arch over Moffett Creek, and concrete girder bridge over Tanner Creek; total cost about $40,000.

Bids desired until Feb. 23 by Wm. N. Marshall, Secy. Columbia River Interstate Bridge Comn., at Room 201, Multonomah County Court House, Portland, for furnishing material and constructing the Columbia River interstate bridge and approaches advertised in Engineering Record. The bridge and approaches are for highway and street car traffic and comprise about 5000 lin. ft. steel structure, and 12,000 lin. ft. of embankment, including about 9500 tons of steel, about 1,000,000 cu. yds. of embankment and about 29,000 cu. yds. of concrete. Waddell & Harrington, of Kansas City, Mo., Engrs.

★**Tuba, Ariz.**—Contracts awarded on bids opened Dec. 22 by Commissioner of Indian Affairs, Dept. Interior, Washington, D. C., for constructing a steel highway bridge, 70-ft. span, across Moencopi Wash, Western Navajo Indian Reservation, near Tuba, as follows: Substructure, to Pueblo Bridge Co., Pueblo, Colo., at $3,061, and superstructure, to Joliet Bridge Co., Joliet, Ill., at $2,680.

London, Ont.—The City Engineer writes that the citizens on Jan. 1 defeated the proposition to construct the proposed bridge over Thames River at Richmond St.; the plans called for a steel superstructure, concrete substructure, one 200-ft. span and 450-ft. trestle, concrete floor; cost $36,870. It will likely be voted on again next January, if not before.

Calgary, Alta.—Bids desired until Feb. 12 by City Commissioners for furnishing and erecting steel superstructure for Louise Bridge at 9th W. St.; will consist of 4 Pratt truss spans each 135 ft. long; approximate weight 400 tons. J. M. Miller, City Clk.

PAVING AND ROADS.

Items Arranged Geographically

★**Connecticut.**—Contract has been awarded by Chas. J. Bennett, State Highway Comr., Hartford, for construction of about 4344 lin. ft. of special 6-in. gravel road in East Lyme, to A. B. Cadwell, New Britain, at $7,493 (bids opened Dec. 31).

Albany, N. Y.—See "Water Works."

Bolivar, N. Y.—The Village Clerk writes bids desired about Feb. 1 for paving Main St., about 1½ miles, with brick, concrete curb and gutter, stone foundation; cost $45,000.

Brooklyn, N. Y.—Bids desired until Jan. 20 by L. H. Pounds, Boro. Pres., for regulating, grading, curbing and laying sidewalks on portions of Canarsie Lane, Foster Ave., 39th 79th and several other streets, requiring 76,236 sq. ft. cement sidewalk (1 year maintenance), 17,750 lin. ft. steel-bound cement curb (1 year maintenance), etc.; also furnishing and delivering 2000 tons limestone or suitable inorganic dust.

Buffalo, N. Y.—Following are the bids opened Dec. 30 for paving: Eckhert St., with asphalt, German Rock Asphalt & Contr. Co., $13,660; Newfield St., asphalt, German Rock Asphalt & Contr. Co., $30,000; same street, with brick, Erie Contr. Co., $28,506.

Lockport, N. Y.—Bids desired until Jan. 23 by County Bd. Supervisors (F. H. Krull, Clk.) for constructing Lewiston Rd. or Chestnut Ridge County Rd. No. 14, Town of Royalton, 2.98 miles; also Quaker Rd., so-called County Rd. No. 15, Towns of Hartland and Somerset, a total distance of 7.458 miles.

Bridgeton, N. J.—Bids reported desired until Jan. 18 by Road Com. Bd. Chosen Freeholders for constructing 9.74 miles gravel road.

Elizabeth, N. J.—The County of Union is considering road development for 1915, to cost about $200,000. No plans and specifications yet ready. Jacob L. Bauer, County Engr.

Hackensack, N. J.—Bd. Freeholders sold $125,000 county good road bonds.

Jersey City, N. J.—Contract about to be let by City Comn. for improvement of Pollock, West Side and Mallory Aves., Sheffield St., Rutgers Ave. and Browne Pl.

Philadelphia, Pa.—Bids desired until Jan. 19 by M. L. Cooke, Dir. Pub. Wks., for repairing and patching asphalt paved streets.

★**Pittsburgh, Pa.**—Contract was awarded Dec. 30 for laying street railways tracks and paving the roadway and sidewalks on the North Side Point Bridge to Booth & Flinn, Ltd., Pittsburgh, at $52,311. Robt. Swan, Dir. Dept. Pub. Wks.

Wilkes-Barre, Pa.—Bids desired until Jan. 21 for $10,000 paving bonds. F. H. Gates, City Clk.

Wilmington, Del.—There is reported to be a movement on foot here looking to the construction of a road to Delaware River and the erection of a pier on the river front at a cost of about $40,000. The Chamber of Commerce is said to be interested.

Wilmington, Del.—See "Sewerage and Sewage Disposal."

Baltimore, Md.—Concrete footways are to be constructed by city in area bounded by Fallsway on the east, Paca St. on west, Pratt St. on south, and Centre St. on north.

Bids desired by City Paving Comn. (J. Myers Hedian, Secy.) until Jan. 20 for paving as follows: Contract 102, Franklin and George Sts. and Druid Hill Ave.; Contract 103, George and Biddle Sts., and Fremont and Druid Hill Aves.; Contract 104, Carey St. and Edmondson Ave.; Contract 105, Greene, Read, Dolphin, Lanvale and Mosher Sts.

Maryland.—Bids desired until Jan. 19 by State Roads Comn., Baltimore (Wm. L. Marcy, Secy.), for Contr. No. D-11—Section of concrete or macadam road, from Linkwood to Mt. Holly, Dorchester Co., about 2.69 miles in length.

Bids desired until Jan. 19 by State Roads Comn., Baltimore (Wm. L. Marcy, Secy.), for Contr. Bc-17-Sect. 6—approximately 1.50 miles sheet asphalt paving for Hanover St. bridge and approaches.

Lowest bids opened by State Road Comn. Dec. 29 for paving were reported submitted as follows: Sheet asphalt, Cathedral St., by American Paving & Contr. Co., at $22,778, and 3¾ miles macadam on Annapolis Boule. by Betz & Boyce, Albany, $38,730; same road with concrete, $42,272.

★Contract reported awarded Jan. 6 by Bd. of Awards to Baltimore Asphalt Block & Tile Co. for repairs to sheet asphalt streets at about $84,510.

Maryland.—See "Bridges."

★**Richmond, Va.**—Contract for completing extension of Grace St. awarded by Administrative Bd. to H. H. George, at about $20,000.

Tallahassee, Fla.—Bids reported desired by A. H. Williams, City Clk., until Feb. 1 for $34,000 grading, curbing and paving bonds.

★**Tampa, Fla.**—Allen Thomas, Clerk Comrs. Pub. Wks., writes that contract for paving with vitr. brick portions of various streets (bids opened Jan. 5) has been awarded to Georgia Eng. Co., Augusta, Ga., and Edwards Constr. Co., Tampa.

★**Alexandria, La.**—S. Weil, City Secy.-Treas., writes contract was awarded Jan. 4 for resurfacing with bitulithic and grading a portion of 3d St. to Gailey & Clark, of Alexandria.

★**Knoxville, Tenn.**—Contracts for macadamizing 80 miles pikes awarded by Morgan County to Oliver & Hill, Maryville, and Solomon Constr. Co., Harriman, at $270,000.

Ashtabula, O.—Bids desired until Jan. 23 by M. H. Turner, Dir. Pub. Service, for paving S. Ridge Rd. with shale block on a concrete foundation, requiring 13,000 cu. yds. excav. and 15,800 sq. yds. pavement. Cost $44,870.

Bellaire, O.—Bids reported desired until Jan. 25 by R. E. Crow, City Aud., for $30,627, N. Jefferson St. paving, curb and sidewalk bonds.

Cleveland, O.—Bids desired until Jan. 30 (readvertisement) by Co. Comrs. Cleveland, for improving Berea-Triskett Road, extending southwesterly from Madison Ave. to intersection of Warren Road and Triskett Road in West Park Township. W. A. Stinchcomb, Co. Surveyor.

Hamilton, O.—City Council contemplates paving N. 2d, N. 8th, N. 9th, Washington, Buckeye, S. 6th and S. 7th Sts.

Hamilton, O.—See "Sewerage and Sewage Disposal."

Lima, O.—Bids desired until Jan. 30 by County Comrs. for constructing an 18-ft. brick pavement with an 8-in. retaining curb on N. West St. from Murphy St. to Robb Ave. H. J. Lawlor, Co. Aud.

Ohio.—Following are bids opened Dec. 11 at the office of Jas. R. Marker, State Highway Comr., Columbus, for state highway work:

★Georgetown, Brown County, Sect. B, of Georgetown-Wilmington Road, I. C. H. 175, in Green Township, for constructing the bridges, culverts, grading roadway and paving with waterbound macadam, length 15,710 ft., width of pavt. 14 ft., width of roadway 26 ft.: Thurber & Browning Co., Cincinnati, $30,850 (awarded contract); Ironton Transfer & Storage Co., Ironton, $31,062; Stratton & Evans, Hamersville, $31,181.

Hamilton, Butler County, Sect. G, of Cincinnati-Hamilton Road, I. C. H. No. 39, in Fairfield Township, construction of bridges and culverts, grading roadway and paving with brick, length 14,786 ft., width of pavt. 16 ft., width of roadway 26 ft.: Wm. L. McHugh, Springfield, $59,900; Youndt & Jackson, Dayton, $58,998; Frank J. Stamm & Son, Hamilton, $58,996; C. C. Ummel & Son, Trenton, $58,490; Garver & Wirtz, Hamilton, $57,470; L. A. Dillon, Hamilton, $53,097. (Award withheld.)

Bids were opened at the office of Jas. R. Marker, State Highway Comr., Columbus, Jan. 8 for improvements on following roads:

Coshocton County, on Sect. A of Walhonding-New Guilford Rd., Perry and New Castle Townships, paving with water-bound macadam; length, 12,505 ft.; estimated cost, $5,909 (no bids received).

★Cuyahoga County, Sect. L of Chagrin Falls-Greenville Rd., Orange Township, constructing bridges and culverts, grading roadway and paving with brick; length, 20,031 ft.; contract awarded to Enterprise Paving & Constr. Co., Cleveland, at $83,449.

★Hardin County, Sect. F of Roundhead-McGuffey Rd., Marion Township, constructing bridges and culverts, grading roadway and paving with brick and reinforced concrete; length, 7205 ft.; awarded to Henry S. Enck, Lima, at $23,787.

★Miami County, Sect. C of Dayton-Troy Rd., in Concord Township, constructing bridges and culverts, grading roadway and paving with bituminous macadam; length, 11,164 ft.; awarded to J. M. Hennessey, Piqua, at $26,897.

★Morgan County, Sect. B, McConnellsville-Caldwell Rd., Bristol Township, constructing bridges, culverts and grading roadway and paving with water-bound macadam; length, 9745 ft.; awarded to H. C. Foster & Son, Richmond, Ind., at $37,743.

★Summit County, Sect. M of Akron-Wooster Rd., in Norton Township, constructing bridges and culverts, grading roadway and paving with brick; length, 12,614 ft.; awarded to H. O. Putnam Constr. Co., Bedford, at $54,210.

★**Troy, O.**—M. A. Gantz, City Engr., writes contract has been awarded to J. M. Hennessey & Bros., Troy, for paving with asphalt macadam 5193 sq. yds., at $1.24 per sq. yd., or a total of $9,449. Montezuma asphalt and Lima stone selected.

Bids will be received by Henry J. Beck, Dir. Pub. Service, until Jan. 27 for paving Market St., to include the following: 13,700 sq. yds. asphaltic concrete paving, 4416 lin. ft. combine curb and gutter, 386 lin. ft. header curb, 570 lin. ft. 18-in. sewer, 36 lin. ft. 15-in. inlet connections complete and 120 lin. ft. 12-in., 6 cast-iron inlets and 1 manhole; estimated cost $26,417. Bids will also be received on paving of street car tracks, 4160 sq. yds. asphaltic concrete paving; estimated cost $7,280.

Urbana, O.—Bd. County Comrs. voted to construct one mile macadam and concrete road northwest of Urbana.

Washington C. H., O.—Bids reported desired until Jan. 25 by John N. McFadden, City Aud., for $20,000 street improvement bonds.

Indiana.—Bids desired by County Commissioners for constructing roads as follows:

Until Feb. 1:

Valparaiso, 2 gravel roads. C. A. Blechly, Co. Aud.

Until Feb. 2:

Rensselaer, stone roads in Walker and Carpenter Townships. Jos. P. Hammond, Co. Aud.

Crawfordsville, 2 roads in Union Township, concrete, gravel and stone; brick and concrete road in Franklin Township; stone road in Clark Township; concrete road in Walnut Township. B. B. Engle, Co. Aud.

Brazil, 2 limestone roads in Lewis Township. W. O. Graeser, Co. Aud.

Indianapolis, Ind.—Bids reported desired until Jan. 18 by Bd. Pub. Wks. (Jos. A. Rink, Pres.) for curbing, paving, etc., in various streets.

Benton Harbor, Mich.—City Council voted to pave with brick Columbus Ave.; cost $17,167.

★**Crystal Falls, Mich.**—Contract has been awarded by the Iron County Road Comn. Jan. 6 to Hicks & Barber, Vulcan, Mich., for grading 10¾ miles of Beech-

★Items marked thus give the names of parties awarded contracts.

wood-Gogebic Road, at $29,951. Next 3 lowest bids: A. D. McRae, Palatka, Mich., $30,793; Widell Co., Mankato, Minn., $30,-271; McGrath Constr. Co., Green Bay, Wis., $31,470. A. L. Burridge, Co. Road Engr.

Detroit, Mich.—Park Commissioner estimates cost of resurfacing 7½ miles of boulevard, at $350,000.

Pontiac, Mich.—Bids desired until Jan. 23 by Co. Road Comrs. (Thos. Lytle, Chmn.), for building 4½ miles of concrete road on Woodward Ave., between Villages of Royal Oak and Birmingham.

Royal Oak, Mich.—Bids desired until Jan. 23 by County Road Comrs. (Thos. Lytle, Chmn.), Pontiac, for constructing 4¼ miles concrete road on Woodward Ave., between Royal Oak and Birmingham.

Moline, Ill.—City Council is considering paving with brick 17th Ave., from 10th to 15th St., 5660 sq. yds., concrete foundation and curb asphalt fill; 25th St., 7th to 11th Ave., 4810 sq. yds., brick pavement asphalt fill, no base or curb, and concrete pavement; 24th Ave., from 16th to 18th St. "A," and 18th St. "A," from 23d to 24th Aves., 4180 sq. yds. concrete curb, armored plate joints and reinforced. Lyle Payton, City Engr.

Manchester, Ia.—Bids reported desired until Jan. 18 by T. Wilson, City Clk., for about 10,000 sq. yds. paving.

Marshalltown, Ia.—Bids reported desired until Feb. 15 for paving a number of streets. For further information address City Clerk.

St. Paul, Minn.—Paving of Raymond and Lexington Aves. with creosoted wood blocks is contemplated by city at cost of about $107,000.

County Comrs. are reported to be considering paving 21 miles of roads.

Arkansas City, Kan.—S. K. Titus, City Engr., writes that resolution has been passed by Comrs. to pave 9 blocks on Summitt St. with brick on concrete base, but nothing definite has yet been done.

Great Falls, Mont.—Bids desired until Jan. 19 by W. H. Harrison, City Clk., for constructing sidewalks during season of 1915.

Columbia, Mo.—City Council Jan. 5 authorized J. Paul Price, City Engr., to prepare plans for paving Matthews St., from Paquin St. to University Ave.; also Sexton Road, from 3d St. to the city limits; both with asphalt macadam with combined curb and gutter.

Little Rock, Ark.—Surveys and plans are being made by State Highway Dept., at Little Rock, for Pulaski County Road Improvement No. 6, consisting of 12 miles waterbound macadam 12 ft. wide. Estimated cost $65,000.

★**Bonham, Tex.**—Contracts for constructing 14 miles roads leading north and south of Bonham awarded by Good Roads Comrs. to Owens Constr. Co., Vicksburg, Miss., at $66,488.

Galveston, Tex.—Bids desired until Jan. 21 at office of John D. Kelley, City Secy., for constructing approximately 21,300 sq. yds. vitr. brick in Ave. H, or a part in 29th St. A. T. Dickey, City Engr.

★**Mt. Pleasant, Tex.**—Contract for paving 10 blocks in business section of city with rock asphalt awarded by City Council to Bert Hahn Constr. Co., Dallas, at about $30,000.

Paris, Tex.—The citizens voted to issue $100,000 bonds for street pavements.

Sutherlin Springs, Tex.—Citizens voted to issue bonds for constructing roads.

Chehalis, Wash.—Bids desired until Feb. 6 by County Comrs. for paving with concrete about 1-mile road on Pacific highway, between Chehalis and Centralia. Probable cost $15,500.

Bids desired same time and place as above for paving a portion of Cowlitz Prairie Rd. Probable cost $32,000.

Olympia, Wash.—Plans being prepared by W. H. Yeager, County Engineer, for constructing 3-mile continuation of Stanke Road.

Seattle, Wash.—Plans completed by A. H. Dimock, City Engineer, for paving 14th Ave.; cost $25,500.

Contracts about to be let by Bd. Pub. Wks. for constructing concrete sidewalks on 32d Ave. N. E. and for concrete walks on N. 76th St.

Bids reported desired Feb. 10 by A. P. Denton, Co. Engr., Seattle, for grading 20 miles of road between Auburn and Enumclaw, cost reported at $80,000, and for grading 10 miles of road between Benton and Issaquah, cost reported at $70,000.

Spokane, Wash.—Bids will probably be received about Feb. 23 by County Comrs. for paving in Deer Park and Waverly, 2 contracts. Work includes about 140,000 sq. yds. asphalt macadam, penetration method, and 150,000 cu. yds. excav. and several concrete structures, about 1500 cu. yds.; grading is heavy, as roads are being put on maximum 5 per cent grade. J. W. Starck, Co. Engr.

★**Long Beach, Cal.**—Paving of American Ave. with asphalt awarded by Bd. Pub. Wks. to Los Angeles Paving Co., at $35,914.

Manhattan Beach, Cal.—Bids reported desired until Jan. 27 by Bd. City Trustees, for constructing speedway, a total length of about 1 mile, including 13 small alleys to be paved to a width of 25 ft. with concrete base and oil and screenings surface, requiring approximately 116,622 sq. ft. paving, 3,301 lin. ft. cement curb, etc.; also improving 37th St., consisting of about ¼ mile of bitulithic pavement. M. M. Murray, City Engr.

San Francisco, Cal.—The Secretary Dept. Pub. Wks. writes that the contemplated work on Railroad Ave., between Revere and Yosemite Aves., includes construction of a standard asphalt pavement, granite curb, catchbasins, culverts and artificial stone sidewalks. Estimated cost $29,500.

★**Tulare, Cal.**—Contract for paving 17 blocks awarded by City Council to Federal Constr. Co., San Francisco, at $90,494.

Mountain Home, Idaho.—County Comrs. contemplate constructing 6-mile road between Mountain Home and Breuneau; cost about $15,000.

Ottawa, Ont.—During this year it is proposed to pave Nepean St., Elgin to Kent, at a total estimated cost of $25,164, to include 7300 sq. yds. asphalt, 4388 lin. ft. gutter, 30 concrete catchbasins; also Gloucester St., Elgin to Kent, at a total estimated cost of $22,709, to include 6400 sq. yds. asphalt, 4390 lin. ft. gutter and 30 concrete catchbasins.

Welland, Ont.—C. Webber, City Clk., writes that the $135,000 paving bonds recently sold will be used for paving. E. W. N. and S. Main and Canal Sts. already completed.

Point Grey, B. C.—Lowest bid opened by City Comn. for paving University Ave., submitted by Ledingham & Cooper, Vancouver, at $23,570.

STREET CLEANING AND GARBAGE DISPOSAL.

Items Arranged Geographically

Miami, Fla.—Local press reports state that the proposed garbage disposal plant will be constructed by city forces, under supervision of B. H. Klyce, City Engr.; cost $16,000.

Ottawa, Ont.—Citizens voted Jan. 4 to issue $60,000 bonds for an incinerator.

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Items Arranged Geographically

★**Dredging — New Haven, Conn.**—Contract awarded to Morris & Cummings Dredging Co., New York, for dredging in New Haven Harbor (bids opened Dec. 16), at 7.44 cts. per cu. yd.; total $52,080.

★**Pier—Brooklyn, N. Y.**—Contract for timber and concrete pier at navy yard (bids opened by Bureau of Yards and Docks, Washington, D. C., Dec. 19) reported awarded to Snare & Triest, of New York, at $158,730.

Dredging—New York, N. Y.—Bids desired until Feb. 11 by Col. W. M. Black, Corps Engrs., U. S. A., First Dist., New York City, Rm. 710 Army Bldg., 39 Whitehall St., New York, N. Y., for dredging in Harlem River, N. Y., advertised in Engineering Record.

★**Dredging—Passaic, N. J.**—Contract for dredging in Passaic River (bids opened Dec. 8) has been awarded to J. A. Seeley, of New York, at 19⅛ cts. per cu. yd.; total $30,000.

★**Dredging — Philadelphia, Pa.** — Bids were opened Jan. 7 at the office of U. S. Engineers, Philadelphia, Pa., for dredging in Delaware River below Philadelphia, as follows. (a) 1,320,000 cu. yds. dredging Sect. D, length 4979 ft.; (b) 1,205,000 cu. yds. dredging in Sect. E, length 6000 ft.; (c) dredging 2,525,000 cu. yds. in Sects. D and E, length 10,979 ft.; (d) total cost: P. Sanford Ross, Inc., Jersey City, N. J., (c) 11.9 cts., (d) $300,475; Maryland Dredging & Contr. Co., Baltimore, Md., (a), (b) and (c) 9.4 cts., (d) $237,350; John H. Gerrish, Boston, Mass., (a) 12.69 cts., (b) 12.39 cts.; Sanford & Brooks Co., Baltimore, Md., (c) 11 cts., (d) $277,750; American Dredging Co., Philadelphia, (a) 8.35 cts., (b) 8.4 cts., (c) 8.3 cts., (d) $209,575 (recommended for award); Atlantic Gulf & Pacific Co., New York, (c) 9.47 cts., (d) $239,117; Timothy J. Daly, Brooklyn, (a) and (b) 16 cts., (c) 15.5 cts., (d) $391,375; Morris & Cummings Dredging Co., New York, (a), (b) and (c) 10.28 cts., (d) $259,570.

Electric Hoists — Philadelphia, Pa.—Bids desired until Feb. 15 (extension of date from Feb. 3) by Geo. W. Norris, Dir. Dept. Wharves, Docks & Ferries, 555 Bourse Bldg., for electric hoists at Southwark Piers, Delaware River, between Catharine and Christian Sts., advertised in Engineering Record.

Breakwater — Wilmington, N. C.—Bids were opened Jan. 5 by Maj. H. W. Stickle, Corps Engrs., U. S. A., for constructing breakwater, including shore connection, at Cape Lookout, N. C.; bids were received on two propositions as follows:

No. 1, on $1,260,000 availability: (a) 3000 tons Class A shore; (b) 5300 tons Class B shore; (c) 36,100 tons Class A. breakwater; (d) 497,700 tons Class C breakwater; (e) total: D. L. Taylor & Co., Medina, N. Y., (a), (b), (c), (d) $1.98, (e) $1,073,358; H. P. Converse & Co., Boston, Mass., (a), (b), (c) $2.38, (d) $2.28, (e) $1,236,818; Roderick G. Ross, Jacksonville, Fla., (a), (b), (c), (d) $2.51, (e) $1,360,671; The E. & W. Gillen Dock, Dredge & Constr. Co., Racine, Wis., (a) and (c) $4.80, (b) and (d) $2.49, (e) $1,369,002; John Cashman & Sons Co., Boston, Mass., (a), (b), (c), (d) $2.64, (e) $1,431,144; Coast Lakes Contr. Co., New York, (a), (b), (c), (d) $3.50, (e) $1,897,350; Standard Lime & Stone Co., Baltimore, Md., (a), (b), (c), (d) $3.44, (e) $1,864,824; Uvalde Asphalt Paving Co., New York, (a) and (c) $5, (b) and (d) $3.50, (e) $1,909,800; Hardaway Contr. Co., Columbus, Ga., (a) and (b) $2.85, (c) $2.80, (d) $2.50, (e) $1,370,525; Crawford Paving Co. and Columbia Granite Co., Washington, D. C., (a), (b), (c), (d) $5.23, (e) $2,835,183; Bowers Southern Dredging Co., Galveston, Tex., (a) and (c) $4.85, (b) and (d) $2.495, (e) $1,372,086.

No. 2, on $3,170,000 availability: (a) 3000 tons Class A shore; (b) 5300 tons Class B shore; (c) 78,700 tons Class A breakwater; (d) 1,143,000 tons Class C breakwater; (e) total: D. L. Taylor & Co., Medina, N. Y., (a), (b), (c), (d) $1.98, (e) $2,435,400; H. P. Converse & Co., Boston, Mass., (a) and (c) $2.34, (b) and (d) $2.24, (e) $2,756,030; Hardaway Contr. Co., Columbus, Ga., (a), (b), (c) $2.55, (d) $2.25, (e) $2,793,600; E. & W. Gillen Dock, Dredge & Constr. Co., Racine, Wis., (a) and (c) $4.80, (b) and (d) $2.39, (e) $2,959,-703; John Cashman & Sons Co., Boston, Mass., (a), (b), (c), (d) $2.70, (e) $3,321,-000; Roderick G. Ross, Jacksonville, Fla., (a), (c), (d) $2.43, (b) $2.49, (e) $2,988,900; Coast Lakes Contr. Co., New York, (a), (b), (c), (d) $2.4495, (e) $3,012,885; Standard Lime & Stone Co., Baltimore, Md., (a), (b), (c), (d) $3.25, (e) $3,997,500; Uvalde Asphalt Paving Co., New York, (a) and (c) $5, (b) and (d) $3.50, (e) $4,317,450; Crawford Paving Co. and Columbia Granite Co., Washington, D. C., (a), (b), (c), (d) $4.98, (e) $6,125,400; Coastwise Dredging Co., Norfolk, Va., (a), (b), (c) $3.76, (d) $2.36, (e) $3,024,600; Bowers Southern Dredging Co., Galveston, Tex., (a) and (c) $4.85, (b) and (d) $2.395, (e) $2,966,226

Earth Levee—Augusta, Ga.—Bids desired until Jan. 19 by City Council, care River and Canal Comn., 747 Broad St. (Nisbet Wingfield, Ch. Engr.), for furnishing material and constructing Sect. 4 of the earth levee at Augusta, requiring 250,000 cu. yds. earth fill and 30,000 cu. yds. earth excav. This will be scraper or wagon work: also constructing 960 lin. ft. reinforced concrete box sewer, 7 x 4½ ft., 1710 lin. ft. 48, 42 and 36-in. brick sewer and 330 lin. ft. 24-in. pipe sewer,

Drainage Bonds — Daytona, Fla.—See "Sewerage and Sewage Disposal."

Drainage — Lake Charles, La.—Some street drainage is being considered, to cost about $15,000, but will first have to be submitted to a vote of the taxpayers. Andrew Cook, City Clk.

★**Levee Enlargement—Vicksburg, Miss.**—Contract was awarded Jan. 2 to H. B. Blanks Levee Co., Vicksburg, for improving Mississippi River, 3d Dist., Vicksburg, which calls for about 630,000 cu. yds. levee enlargement from Damascus to Princeton, Stations 1800 to 2100, Lower Yazoo Levee Dist., Miss., at 12.24 cts. per cu. yd.; total $77,112. Other bids—(a) per cu. yd., (b) total: R. T. Clark & Co., Natchez, (a) 12.4 cts., (b) $78,120; W. T. & E. M. Lowrance & Co., Memphis, Tenn., (a) 14.95 cts., (b) $94,185; Sessions, Dulaney & Co., Grace, (a) 13.94 cts., (b) $87,822; R. L. Leonard, Memphis, Tenn., (a) 13.98 cts., (b) $88,074; J. A. Burt & Co., Gunnison, (a) 14.68 cts., (b) $92,484; Linnan Bros. & Co., Box 364, Memphis, Tenn., (a) 13.2 cts., (b) $83,160; Roach, Stansell, Lowrance Bros. & Co., Memphis, Tenn., (a) 13.74 cts., (b) $86,562; Gibson, Jackson & Co., Natchez, (a) 14.38 cts., (b) $90,594.

Ditch—Ashland, O.—The Comrs. of Ashland and Wayne County reported to be considering widening, deepening and dredging Muddy Fork and Jerome Fork, branches of Mohican River; cost, including bridges, about $60,000.

Steel Hull for Derrick Boat—Cincinnati, O.—Bids desired until Feb. 9 by Lieut.-Col. Wm. L. Sibert, Corps Engrs., U. S. A., Cincinnati, O., for constructing steel hull for Derrick Boat No. 4, Kentucky River, Ky.

★**River Work—Indianapolis, Ind.**—Contract reported awarded by Bd. Pub. Wks. to Bernard Norton for excavating obstructions along east side of White River, from Oliver Ave. to a point south of Kentucky Ave., at $11,126 for excavating work and 9 cts. per cu. yd. for hauling earth across river, where it will be used in building Drover St. levee.

Drainage—Gibson City, Ill.—The Comrs. of Sangamon & Drummers Drainage Dist (C. F. Helman, Engr.) have completed plans for drainage of city. Phillips & Swanson, Attorneys for District, are at work on the assessment; estimated cost $36,700. Segment tile is favored for larger portion of work.

Pumping Station for Drainage Work—Quincy, Ill.—Bids desired until Feb. 19 by Edmund F. Perkins Eng. Co., First Natl. Bank Bldg., Chicago, for an electric pumping station for South Quincy Drainage and Levee Dist., Adams County, Ill., advertised in Engineering Record. Work includes pump house, substation, suction and discharge bays, laying about 180 ft. c.-i. pipe, haul and erect all machinery and wiring for electric machinery and lighting. Bids will be received as a whole for all pumping machinery or for each part separately and includes 2 centrifugal pumps, equipped with chain drive and necessary auxiliaries, a 5-ton traveling crane and two 200 hp. motors and auxiliaries and three transformers.

★**Reservoir—Ft. Shaw, Mont.**—Contract reported awarded by the U. S. Reclamation Service to Bates & Roger Constr. Co., Spokane, Wash., for construction of a portion of the Pishkun reservoir supply canal in connection with the Sun River project, Mont., at $39,939. Work involves excavation of about 68,500 cu. yds. of material, 15,000 cu. yds. overhaul, the erection of canal structures, etc.

Irrigation—St. Ignatius, Mont.—Following are the unit prices of the Miracle Constr. Co., Kalispell, lowest bidder for constructing structures on Pablo Laterals "A" and "31A" and sub-laterals (bids opened Dec. 22) by U. S. Reclamation Service, St. Ignatius:

2,380	cu. yds. excav. Class 1	$0.24
160	cu. yds. excav. Class 2	.78
30	cu. yds. excav. Class 3	1.50
150	cu. yds. puddling	.60
370	cu. yds. concrete	11.00
32,500	lbs. place reinforcing steel	.02
620	sq. yds. grouted paving, 18 in.	3.00
160	sq. yds. grouted paving, 12 in.	2.50
240	sq. yds dry paving	1.75
	Total Schedule 1	$8,351.00
4,100	cu. yds. excav. Class 1	$0.24
150	cu. yds. excav. Class 2	.78
50	cu. yds. excav. Class 3	1.50
700	cu. yds. puddling	.75
450	cu yds. concrete	12.00
28,000	lbs. place reinforcing steel	.02
200	lbs. erecting structural steel	.03
1,575	sq. yds. grouted paving, 12 in.	2.25
1,000	sq. yds. dry paving	1.75
410	lin. ft. mfg. & lay. 12 in. concrete pipe	.75
220	lin. ft. do., 13 in	1.20
410	lin. ft., do., 24 in	1.75
300	lin. ft. do., 30 in	3.00
	Total Schedule 2	$15,149.75
1,750	cu. yd. excav. Class 1	$0.24
100	cu. yd. excav. Class 2	.78
50	cu. yd. excav. Class 3	2.00
300	cu. yd. puddling	.75
220	cu. yd. concrete	12.00
13,000	lb. place reinforcing steel	.02
760	sq. yd. grouted paving, 18 in.	2.25
160	sq. yd. grouted paving, 12 in.	2.00
700	sq. yd. dry paving	1.75
380	lin. ft. mfg. & lay. 12 in. concrete pipe	.75
100	lin. ft. do., 18 in	1.40
60	lin. ft. do., 24 in	2.00
120	lin. ft. do., 30 in	3.00
	Total Schedule 3	$7,883.00
	Grand Total	$31,384

Drainage Work—Elsberry, Mo.—Bids desired until Feb. 8 by Maj. Clarke S. Smith, Corps Engrs., U. S. A., Mississippi River Comn., 1311 International Life Bldg., St. Louis, Mo., for constructing about 100,000 cu. yds. earthwork in Elsberry Drainage Dist.

★**Drainage — Elsberry, Mo.**—Contract has been awarded by the Mississippi River Comn., International Life Bldg., St. Louis, Mo., to Hutchinson & Oakford, Peoria, Ill., for about 225,000 cu. yds. earthwork in Elsberry Drainage District, at 10.9 cts. per cu. yd.

Drainage—Angleton, Tex.—The Angleton Drainage Dist. has voted an additional $80,000 drainage bonds.

Irrigation Work—Fowler, Colo.—C. A. Watson, of Fowler, Secy. Apishapa Canon Irrigation Co., writes that it is proposed to construct an irrigation system including building a reservoir in Apishapa Canon, a tributary of Arkansas River; capacity 33,000 acre ft.; dam 115 ft. high of rock and earth; total cost, $375,000. Engineers, Field, Fellows & Hindeslider Eng. Co., Denver.

Irrigation Work—North Yakima, Wash.—It is reported that plans have been announced for the following ditch improvements by irrigation companies of this district, all having offices in this city: Yakima Valley Canal Co., $20,000; Selah Moxee Canal Co., $25,000; Selah Canal Co., $36,000, and the Union Gap Irrigation Co., $65,000.

Wharf — Seattle, Wash.—J. R. West, Central Bldg., Ch. Engr. Port of Seattle Comn., has been instructed to prepare plans for construction of wharf and fish market at foot of Marion St., to cost between $20,000 and $25,000.

Fill—Seattle, Wash.—City Council has instructed City Engr. Dimock to prepare plans for filling in Alki Ave., from West Seattle Ferry Landing to Alki Point, to cost about $210,000.

★**Dock—Seattle, Wash.**—Contract for constructing superstructure of dock at foot of Marion St. for the Grand Trunk Pacific Steamship Co. has been awarded to J. M. Clapp, Burke Bldg., Seattle, at about $75,000. The substructure is being constructed by Nettleton, Bruce & Eachbach, American Bank Bldg. Webster & Ford, Archts., Lyon Bldg.

Pier—Redondo Beach, Cal.—An election will probably soon be held to vote on issuing $121,000 bonds for a municipal pleasure pier and $85,000 for public parks.

★*Items marked thus give the names of parties awarded contracts.*

Concrete Wharf—Richmond, Cal.—Bids opened Dec. 28 by City Council for constructing reinforced concrete wharf (to be known as Municipal Wharf No. 1, Richmond Harbor) on the water front at Point Richmond, and following are reported to be totals of bids received: McLaren & Peterson, $277,520; San Francisco Bridge Co., $277,006; Pacific Constr. Co., $271,406; Guthrie-McDougal Co., $280,000; Healy-Tibbitts Constr. Co., San Francisco, $257,710. Engineer, P. A. Haviland, of Haviland & Tibbetts, Alaska Commercial Bldg., San Francisco.

Irrigation—Santa Paula, Cal.—It is reported that the Pleasant Valley Lemon Co. will construct an irrigation system costing $100,000 and a cement distributing system to cost $75,000 at Santa Paula, to serve 1080 acres in Pleasant Valley, 10 miles east of Oxnard and 1 mile north of Somis. Judge S. B. Kingsbury, Pres. A. C. Hardison, Engr.

Irrigation—Mesa, Ariz.—A company is reported formed by John Shrock, Wichita, Kan., and J. R. Rittenhouse, Phoenix, for the construction of a system to irrigate about 25,000 acres tributary to Mesa on the east, including pumping plants, etc.

ELECTRIC RAILWAYS.

Items Arranged Geographically

Niagara Falls, N. Y.—International Ry. Co. has asked Public Comn. Second District for permission to build line between Niagara Falls and Lockport. E. G. Connette, Pres., Buffalo.

Easton, Pa.—Easton Transit Co. received franchise to reconstruct lines in South Easton. H. R. Fehr, Pres.

Leisenring, Pa.—West Penn Traction Co. will build extension between Leisenring and Uniontown.

Washington, D. C.—Washington Ry. & Electric Co. plans to spend $200,000 for extension of lines.

Parkersburg, W. Va.—Marietta-Parkersburg Interurban R.R. Co. chartered to build 10-mile electric railway from Parkersburg to Marietta, O. Capital $10,000. John Kaiser and E. Clark, Jr., among incorporators.

Girard, Ga.—Plans being made by Columbus R.R. Co. and City Council for constructing electric railway in Lower Girard. John S. Bleecker, Mgr., Columbus.

Knoxville, Tenn.—M. K. Bell, Knoxville, contemplates constructing electric railway between Knoxville, Bristol and Newport, Tenn., 120 miles.

Evansville, Ind.—Public Utilities Co. plans to build 2-mile Bell St. extension. A. C. Blinn, Gen. Mgr., Evansville.

Almont, Mich. — Detroit, Almont & Northern R.R. Co. plans to build 9½-mile line between Almont and Imlay.

Carbondale, Ill.—Murphysboro & Southern Illinois Ry. Co. contemplates constructing electric line between Carbondale and Murphysboro. A. B. Minton, Murphysboro, Pres.

Urbana, Ill.—Kankakee & Urbana Traction Co. plans an extension to Paxton.

Colfax, Ia.—Plans being considered by Des Moines Ry. Co. to construct an extension from Colfax to Newton. J. R. Sterling, Ch. Engr., Des Moines.

Omaha, Neb.—Plans contemplated by Omaha & Council Bluff St. Ry. Co. to extend Harney Line south from 6th St. terminus to Gibson. W. A. Smith, Gen. Mgr., Omaha.

Billings, Mont.—Surveys have been completed for line to be built to Big Horn Canyon, distance 68 miles. John J. Harris, Hardin, Pres.

St. Louis, Mo.—Springfield & Central Illinois Traction Co. will, during the coming summer begin construction work on an interurban railway which will ultimately extend from St. Louis, Mo., across the State of Illinois to Terre Haute, Ind. Right of way and franchises have been obtained from Terre Haute to St. Louis; also for intersecting line from Springfield to Duquoin, for which franchises have been granted. According to plans building of line will commence at St. Louis and extend toward Newton. Power plant will be erected 46 miles east of St. Louis. It is also planned to operate electric lighting plants in smal ltowns along the line. Isaac A. Smith, Pres. A. C. Skillman, Secy. N. E. McMillan, Treas., all of St. Louis.

Fresno, Cal.—Fresno Traction Co. received franchise from Council along Fresno Ave. and Fresno St., Stanislaus, "O," Tulare and "P" Sts. to Southern Pacific Reservation in Fresno. Frank W. Webster, Gen. Mgr., Fresno.

RAILROADS.

Items Arranged Geographically

Jacksonville, Fla.—The Atlantic Harbor R.R. Co. is reported formed, with a capital of $50,000, to construct a railroad from Jacksonville to Ft. George Island. Geo. J. Percival, Pres., Atlantic City, N. J.; P. D. Cassidy, Jacksonville, and others, incorporators.

Barberton, O.—Council has passed ordinance instructing City Engineer to prepare plans for elimination of grade crossings by building the East Tuscarawas Ave. viaduct.

Sandusky, O.—City Council has passed an ordinance providing for elimination of the Camp St. grade crossing, etc., cost $194,200, and for construction of Columbus Ave. subway, to cost $239,441. Cost of work will probably be divided between the city, the Lake Shore and the B. & O. Railroad Companies.

Vancouver, Wash.—The Portland Vancouver Northern Railroad Co., Vancouver, reported incorporated with a capital of $300,000 by Henry Crass and O. W. Ford, both of Vancouver, with Vancouver as the principal place of business. A franchise across the proposed Interstate bridge will be asked, and a line constructed to connect Vancouver, Wash., with Portland, Ore. Lines will also be built from Vancouver to various sections of Clarke County. It is also reported that the company will take over the properties of the Oregon-Washington Corp.

San Bernardino, Cal.—Press reports state that R. B. Charlton, Superv. of the Angeles Natl. Forest, has approved application of the Salt Lake R. R. (Arthur Maguire, Ch. Engr., Los Angeles), for a right-of-way through government land between San Bernardino and Daggett by way of Canjon Pass. It is said that the Salt Lake R. R. plans to begin construction of 100 miles of track. Cost of construction said to be about $4,000,000.

PUBLIC BUILDINGS AND SCHOOLS.

Items Arranged Geographically

Salem, Mass.—Plans of Jas. E. McLaughlin, Boston, have been selected for the new high school; cost $100,000.

Exeter, R. I.—Plans have been prepared by Wm. R. Walker & Son, 17 Custom House St., Providence, for the buildings which are to be erected at the Rhode Island School for Feeble-Minded, which are to consist of 5 buildings and a new wing.

Bridgeport, Conn.—Bids desired until Feb. 1 by Bd. Contract and Supply for general construction of almshouse, including electric work; also mechanical equipment.

Bristol, Conn.—Erection of a new city hall, costing about $85,000, is under consideration. Address Mayor.

School Dist. Com. has appropriated $90,000 for erecting a school in School Dist. No. 1 for which plans are being prepared by Walter P. Crabtree, of New Britain.

New Haven, Conn.—Bids desired until Jan. 29 by Bd. Educ. (G. T. Hewlett, Secy.) for furnishing material and erecting Strong School on Grand Ave. Brown & Von Beren, Archts., Chamber of Commerce Bldg.

Bath, N. Y.—Bids desired until Feb. 2 by Jos. A. Goulden, Pres. Bd. Trus. N. Y. State Soldiers and Sailors Home, Bath, for alterations to electric plant in said home, advertised in Engineering Record. Lewis F. Pilcher, State Archt., Albany.

Beacon, N. Y.—G. F. DuBois, Clk. Bd. Educ., writes that architect has not yet been selected for the proposed school; cost reported to be $48,000.

Binghamton, N. Y.—Bids reported desired until Jan. 20 by D. W. Foster, City Clk., for $106,000 school bonds.

Brooklyn, N. Y.—Bids desired until Jan. 25 by C. B. J. Snyder, Supt. School Bldgs., New York City, for general construction; also plumbing and drainage of new School 100. Security $80,000 and $6,000, respectively.

Long Island City, L. I., N. Y.—Plans filed for 2½-story brick public school to be erected at Crocheron and Franklin Aves. for N. Y. City Bd. Educ., 500 Park Ave., New York; cost $70,000.

New York, N. Y.—Plans being prepared by Delano & Aldrich, 4 E. 39th St., for a 3-story building to be erected at 5th Ave. and 98th St. for St. Bernard School, which is now at 111 E. 60th St.

Bids desired until Jan. 18 by C. B. J. Snyder, Supt. School Bldgs., New York, for general construction of School 54, Boro. Bronx. Security $100,000.

Plans filed for 5-story brick school to be erected at Spofford Ave. and Coster St. for city of New York; cost $275,000. C. B. J. Snyder, Archt., 500 Park Ave.

★**Rochester, N. Y.**—J. T. Mullan, Supt. Bd. Educ., writes that contracts for erecting addition to Washington High School have been awarded as follows: Mason work, to Peter G. Hauck, 503 Cox Bldg., Rochester, $27,793, and carpenter work, Wm. F. Maas, Railroad St., Rochester, $12,799.

Thiells, N. Y.—Bids desired until Jan. 30 by Frank A. Vanderlip, Pres. Bd. Mgrs., Letchworth Village, 55 Wall St., Room 215, New York, N. Y., for construction, heating, plumbing, electric work and laundry machinery for laundry building; also construction, heating plant and underground piping, plumbing and drainage and electric work for power house at the Letchworth Village, Thiells, advertised in Engineering Record. Lewis F. Pilcher, State Archt., Capitol, Albany.

Yonkers, N. Y.—Plans prepared by I. E. Ditmars, 111 5th Ave., New York, for a 4-story addition to the St. Joseph Hospital.

Trenton, N. J.—Plans about completed by Klemann & Fowler, Trenton, for a 2½-story brick and stone addition to the City Hospital; cost $40,000.

Braddock, Pa.—Reported bids desired for erecting the addition to the Braddock General Hospital; approximate cost $70,000. Address Bd. Trus.

Monaca, Pa.—Plans being prepared by Carlisle & Sharrer, Jenkins Arcade Bldg., Pittsburgh, for a county home group to be erected here by the Comrs. of Beaver County. Geo. Swaney, Co. Clk., Beaver. Cost about $80,000.

Mahonoy City, Pa.—Mahonoy Township School Bd. has decided to erect a central high school costing $75,000.

Washington, D. C.—See "Miscellaneous."

Alexandria, Va.—Bd. Trus. of Alexandria Hospital is considering plans for a $50,000 building.

Pulaski, Va.—Citizens voted in favor of issuing $58,000 school bonds.

Fairmont, W. Va.—Plans about completed by Paul A. Davis, 3d, Philadelphia, Pa., for an administration building, dormitories and training school to be erected at the Normal School.

Huntington, W. Va.—Bids reported desired until Feb. 5 by Jas. K. Oney, Secy. Bd. Educ., for erecting high school on 8th St. Versus T. Ritter, Archt., Huntington.

Atlanta, Ga.—Bd. Trus. of the Georgia Tech. is taking steps to erect the power laboratory, for which there is $200,000 available.

★**Thomasville, Ga.**—Contract for erecting U. S. Post Office awarded to Westchester Eng. Co., White Plains, N. Y., at $55,506.

Jacksonville, Fla. — Armory bonds amounting to $150,000 have been sold.

Covington, Tenn.—Bids desired until Feb. 20 by O. Wenderoth, Supervising Archt., Washington, D. C., for construction, complete (including mechanical equipment, interior lighting fixtures and approaches), U. S. Post Office at Covington.

Knoxville, Tenn.—Plans for the Lawson McGhee Public Library, to be erected on Commerce Ave. and Market St., are being prepared by Grant C. Miller, of Chicago, Ill. N. B. Baumann, of Knoxville, Resident Archt.

Barberton, O.—Plans for the high school are to be prepared by Harpster & Bliss, Akron. Address Bd. Educ.

Canton, O.—Clerk Bd. of Education writes bids desired about Mar. 1 for erection of fireproof high school, from plans of Geo. F. Hammond, of Cleveland; cost about $400,000.

Columbus, O.—The Mayor, in his annual message, recommends enlargement of city's market facilities; reconstruction of Central Market, large convention and assembly hall; establishment of a municipal hospital and elimination of overhead wires in all sections of city, and erection of a new city hall.

Findlay, O.—School bonds amounting to $300,000 have been sold.

Lima, O.—Bids desired until Feb. 8 by Bd. Educ. (C. B. Dwiggins, Clk.) for furnishing material and erecting 2 elementary schools. McLaughlin & Hulsken, Archts., Lima.

Warren, O.—Bids desired until Jan. 21 by Bd. Educ. (Ruth E. Dillion, Clk.) for furnishing material and erecting 4 schools. Frank L. Packard, Archt., New Hayden Bldg., Columbus.

Willoughby, O.—Bids desired by Clerk Bd. of Educ. until Jan. 26 for the erection of a fireproof brick and concrete high school, from plans of Franz C. Warner, Hippodrome Bldg., Cleveland; cost $80,000.

Indianapolis, Ind.—Plans about completed for the library to be erected here at a cost of $500,000. Address Library Bd., Paul B. Crete, Perry Bldg., and Zantzinger, Borie & Medary, 15th and Walnut Sts., Philadelphia, Pa., Archts.

Detroit, Mich.—Reported bids for erecting superstructure of public library will be asked about the last of January. Address Public Library Bd. Trus.

Minneapolis, Minn.—Bids desired until Jan. 21 (extension of date from Jan. 7) by State Bd. Control, St. Paul, for erection of biology building at University of Minnesota, Minneapolis, including ventilating, heating and electrical work. C. H. Johnston, Archt., Capital Bank Bldg., St. Paul.

Northfield, Minn.—N. S. Patton, Holmes & Flinn, 8 S. Dearborn St., Chicago, Ill., are architects for the proposed building contemplated by Carleton College.

Cooperstown, N. D.—Bids desired until Feb. 1 by Berg Bros. for erecting the A. H. Berg Memorial Gymnasium. Hancock Bros., Archts., Fargo.

Sioux Falls, S. D.—Bids desired until Feb. 12 by Bd. Educ. (W. B. Fuller, Clk.) for erecting a school. Patton, Holmes & Flinn, Archts., 8 S. Dearborn St., Chicago, Ill.

Bozeman, Mont.—Following are four lowest bids received Jan. 2 by Superv. Archt., Washington, D. C., for erecting U. S. Post Office at La Junta—(a) limestone, (b) sandstone: Olson & Johnson Co., Missoula, (a) $61,475; (b) $62,750; Leighland, Kleppe & Co., Great Falls, (a) $65,000, (b) $66,175; John Almeter, Portland, Ore., (a) $65,900, (b) $67,000; Reynolds, Sypher & Shackleton, Butte, (a) $65,990, (b) $67,190.

Houston, Tex.—See "Sewerage and Sewage Disposal."

San Antonio, Tex.—Plans have been prepared by Henry Phelps for a 10-class room and auditorium school building to be erected in Dist. 41, on Frio Road. Bids for construction will be asked soon.

Plans have also been prepared for a 10-class room and auditorium school building to be erected in Dist. 25 on Presa St. Address Bd. Educ.

La Junta, Colo.—Following are four lowest bids received Jan. 4 by Superv. Archt., Washington, D. C., for erecting U. S. Post Office at La Junta, using limestone: Geo. W. Stiles Constr. Co., Chicago, Ill., $75,834; Hiram Lloyd Bldg. & Constr. Co., St. Louis, Mo., $76,537; Wm. O'Neil & Son Co., Faribault, Minn., $82,197; John Lof & Co., Omaha, Neb., $84,062. Only bid for sandstone was from Hiram Lloyd Bldg. & Constr. Co., St. Louis, at $76,937.

★**Okanogan, Wash.**—Contract for erecting the new court house reported awarded to E. D. Davenport, Omak, Wash., at about $50,000. Geo. H. Keith, Spokane, Archt.

Seattle, Wash.—Bids desired until Jan. 28 by Port of Seattle Comn., Central Bldg. (C. E. Remsberg, Secy.), for erecting 7-story reinforced concrete and hollow tile, 147 x 195 ft., cold storage fruit warehouse at Whatcom Ave. and Spokane St. Probable cost $150,000.

★**Spokane, Wash.**—Chas. Gabriel, Deputy County Aud., writes contract has been awarded to J. E. Cunningham, Spokane, for erecting tuberculosis hospital, at $45,188 (bids opened Dec. 22). Plumbing contract reported awarded to Standard Plumbing Co. at $17,000.

Salem, Ore.—State Bd. Control during this summer plans erecting the following medical buildings at Portland, to cost $300,000: Wing to Eastern Oregon Hospital, cost $120,000; north wing to Oregon State Hospital, cost $60,000; normal school at Monmouth, cost $50,000; repairs to State Agricultural College, Portland, cost $50,000; new college building at State Medical School, cost $50,000, and $124,000 for buildings at the State Fair in Portland.

Oakland, Cal.—Bids desired until Jan. 19 by Bd. Educ. for erecting Clawson School. Probable cost $165,000. J. J. Donovan, Archt., Security Bldg.

Ventura, Cal.—J. B. McCloskey, Co. Clk., writes all bids opened Jan. 1 for general construction of Ventura County Hospital have been rejected. Albert C. Martin, Archt., 430 Higgins Bldg., Los Angeles.

Pocatello, Idaho.—The Board of School Trustees writes that bonds for the erection of new high school have been recalled.

Orono, Ont.—Bids desired until Feb. 6 by A. J. Staples, Secy. School Bd., for erecting the Continuation and Public School building. J. P. McLaren, Archt., Ottawa.

PRIVATE BUILDINGS.

Items Arranged Geographically

Boston, Mass.—Arthur H. Vinal, 19 Milk St., is architect for the 4-story fireproof garage to be erected at W. Dedham St. at a cost of $80,000 for the Tremont Realty Co.

Donnolly Advertising Agency has secured a site on Washington St. on which to erect a concrete headquarters building costing $50,000.

★**New York, N. Y.**—Plans being prepared by Saml. Katz, 505 5th Ave., for a 16-story store and loft building to be erected at Bway. and 31st St. for Walter F. Hopper, 110 W. 40th St. Isaac A. Hopper Co., Inc., 110 W. 40th St., will have the general contract.

Fredk. H. Gleason, 311 W. 95th St. contemplates erecting a fireproof concrete garage in 56th St., near Lexington Ave., to cost $100,000.

Plans filed for 6-story brick non-fireproof storage building to be erected at 438 E. 91st St. by Wm. F. Cunningham, 1826 1st Ave.; cost $50,000. John P. Boyland, Archt., Fordham Rd. and Webster Ave.

Camden, N. J.—Atlantic City R.R. Co. (Wm. Hunter, Ch. Engr., Philadelphia, Pa.) is taking steps to erect the ferry house and train terminal which was destroyed by fire Jan. 3.

Oakland (P. O. Pittsburgh), Pa.—The Oakland Baptist Church proposes erecting a parsonage and auditorium at McKee Pl. and Louisa St. to cost about $125,000.

Philadelphia, Pa.—Bids reported desired by Horace Trumbauer, Archt., Land Title Bldg., for erecting an 11-story brick and concrete apartment house at Walnut and Sudenham Sts.; cost about $100,000.

★Contract for erecting 4-story fireproof apartment house at 12th St. and City Line awarded to Isaac T. Shoemaker, 1309 Walnut St. Chas. E. Oelschlager, Archt., Harrison Bldg.; cost $200,000.

★*Items marked thus give the names of parties awarded contracts.*

Paoli, Pa.—Plans completed by Wm. Cookman, Archt., Broad St. Station, Pennsylvania R.R., for a 1-story brick and concrete power house to be erected for the said railroad at a cost of $40,000.

Richmond, Va.—Plans have been prepared by Carneal & Johnston, Richmond, for a 3-story lodge building which the Order of Elks, Lodge 45, intends erecting.

★**Wheeling, W. Va.**—Reported contract for altering the building of the F. Schenk & Sons Co., on Market St., awarded to Geo. Hunt, Wheeling.

★**Savannah, Ga.**—Contract was awarded Jan. 4 to Wise Granite & Constr. Co., Richmond, Va., for erecting 9-story fireproof hotel, 30 x 90 ft., for Robt. M. Hicks. Architect, H. W. Witcover, of Savannah.

★**Akron, O.**—Contract for erecting a 5-story building to replace the Walsh Block, recently destroyed by fire, has been awarded to Carmichael Constr. Co., Akron.

Granite City, Ill.—Chicago & Alton (H. T. Douglas, Jr., Ch. Engr., Chicago, Ill.) and the Big Four Railroads are reported to be taking steps to construct a viaduct over 20th St. and erect a union station; estimated cost $250,000.

Detroit, Minn.—Bids desired in Feb. for erecting Catholic Church. Plans and specifications at Builders' Exchange, St. Paul and Minneapolis. Rev. Chas. Cannon, Pastor.

St. Paul, Minn.—St. Paul Union Depot Co. (Edmund Pennington, Pres.) has submitted to the City Council for approval plans for new union depot, which is to cost $15,000,000. Plans later will be submitted to the Secretary of War before construction work will begin.

★**St. Paul, Minn.**—Emporium Department Store (Angus McLeod, Pres.) intends erecting at 7th and Robert Sts. a 5-story building. Contract for steel work has been awarded to St. Paul Fdry. Co., and for the terracotta work to American Terra Cotta Co.

Young America, Minn.—Bids desired until Jan. 23 by F. F. Kloth, Secy. Bldg. Com. Evangelical Lutheran Church, Bank of Norwood, Norwood, for erecting an edifice at Young America. A. F. Gauger, Archt., St. Paul.

Atchison, Kan.—Bids reported desired until Jan. 19 by Masonic Order (A. W. Nicholson, Secy.) for erecting reinforced concrete, 60 x 90 ft., 3-story Masonic Temple. Approximate cost, including heating, plumbing, electric wiring, etc., $50,000. Crumpacker & Wyatt, Archts.

★**Texas City, Tex.**—Contract for erecting a theater on 6th St. for J. R. Campbell awarded to Southwest General Constr. Co., Texas City.

NEW INDUSTRIAL PLANTS.

See also "Private Buildings."
Items Arranged Geographically

Boston, Mass.—Mercantile Real Estate Trust is having plans prepared for a 5 sectional fireproof factory to be erected at the old South End baseball grounds, to be 4 stories high.

Long Island City, L. I., N. Y.—Plans have been prepared by Timmins & Chapman, 315 5th Ave., New York, for a 1 and 2-story reinforced concrete fireproof music publishing plant for G. Schirmer, Inc., to be erected at Anabel, Cadman and Gould Aves. and Addison Pl.

Tuckahoe, N. Y.—Plans completed by Saml. M. Greene & Co., Portchester, for 2-story factory to be erected at Midland Ave. for Commercial Research Co., at a cost of $25,000, for the manufacture of platinum filaments for tungsten lamps.

★**Camden, N. J.**—Contract awarded to Irwin & Leighton, Philadelphia, Pa., for 2-story concrete and brick, 100 x 200 ft., power house to be erected at the plant of the Victor Talking Machine Co. Ballinger & Perrot, Archts., Philadelphia, Pa.

Paterson, N. J.—The East Jersey Pipe Co. intends rebuilding their plant recently destroyed by fire.

Harrisburg, Pa.—Plans being prepared by Day & Zimmerman, Engrs., 611 Chestnut St., Philadelphia, for a manufacturing plant for W. O. Hickok Mfg. Co., to include a main shop, 1 and 2 stories, brick, 150 x 263 ft., foundry building 60 x 140 ft., heating plant and 6 dry kilns and stable; brick, concrete and steel will be used in the construction, and bids will be asked about March 1.

★**Marcus Hook, Pa.**—Contract awarded by Benzol Products Co. to F. W. Van Loon, Denckla Bldg., Philadelphia, for 3 stories, 60 x 180 ft. and 50 x 210 ft. brick, steel and reinforced concrete factory buildings, to cost $75,000.

★**Baltimore, Md.**—Contract awarded to Irwin & Leighton, Philadelphia, Pa., for a 9-story brick addition to the factory of the Townsend Grace Co. on Garrett St., and to raise from 6 to 7 stories their present factory, at 106 Fayette St. Cost reported at about $100,000. Jos. Evans Sperry, Baltimore, Archt.

★Contract awarded to B. F. Bennett Bldg. Co., Baltimore, by the Baltimore Gas Appliance Mfg. Co. to erect a 1 and 2-story brick building at Bayard St., east of Nanticoke, to be 215 x 135 ft high and cost $26,350.

Lexington, N. C.—Reported Erlanger Cotton Mills will erect 294-ft. extension to their plant and will add 15,400 spindles and 420 looms to present equipment, and will also erect 30 cottages for employees, with water, sewer and electric lighting facilities. Cost is reported at about $400,000.

Charleston, S. C.—General Asbestos & Rubber Co., it is reported, intends erecting factory at North Charleston costing $125,000. C. Bissell, Jenkins, Pres.

Birmingham, Ala.—Plans being prepared by Harry B. Wheelock, Birmingham, for a 5-story reinforced concrete fireproof building to be erected for the Steel-Smith Co. to replace the building destroyed by fire.

Struthers, O.—The Western Conduit Co., a subsidiary of the Youngstown Sheet & Tube Co., intends erecting an addition costing $50,000.

Wausau, Wis.—Bids will be received about Feb. 1 by H. E. Schuler, Secy. Farmers Co-operative Packing Co. for the erection of a 2-story concrete and brick packing house, to cost about $60,000.

Minneapolis, Minn.—Bids reported desired until Feb. 1 by Lathrop-Kemps Ice Cream Co., 222 N. 5th St., for erecting 2-story and basement, 80 x 100 ft., ice cream factory.

Hugo, Okla. — International Compress Co., Paris, Tex., will rebuild cotton compress recently destroyed by fire.

Seattle, Wash.—Imperial Candy Co., 200 Western Ave., has consolidated with the Inland Empire Biscuit Co. of Spokane and intends erecting a 5-story 120 x 120-ft. concrete manufacturing plant in this city, costing $200,000.

Ottawa, Ont.—Citizens voted Jan. 4 to issue $100,000 bonds for an abattoir.

MISCELLANEOUS.

See also "Hydraulic Construction and River Improvements."
Items Arranged Geographically

Electric Wiring Book Stacks, Etc.; Also for Steel Furniture—Albany, N. Y.—Following are lowest bids opened Dec. 29 by Bd. Trus. Pub. Bldgs., Executive Chamber, Capitol, Albany:

Additional radiation, Capitol power house: W. B. Armstrong Co., Albany, $1,988; Thos. A. O'Malley, Albany, $2,074.

Standard and steel furniture for State Tax Comn.: B. Gloeckner & Co., Inc., Albany, $11,359; Clayton E. Marsters, Albany, $11,700; A. Pearson's Sons, Brooklyn, $11,943; Cobb-Macey-Dohme, Inc., New York, $12,598.

Electric wiring for book stacks and reflectors: Hatzel & Buehler, New York, $10,840; Finch & Hahn, Albany, $11,000; Edw. Joy Co., Syracuse, $11,775; Lord Electric Co., New York, $11,888.

Hardware in Armory—Albany, N. Y.—Bids desired until Jan. 18 by Col. Franklin W. Ward, Secy. Bd. Armory Comrs., 174 State St., Albany, for the finishing hardware for armory and stable of Troop B, First Cavalry, N. G. S. N. Y., Albany, advertised in Engineering Record.

Power Plants—Washington, D. C.—Plans are being completed and will be ready for delivery about Jan. 15 by O. Wenderoth, Superv. Archt., Treas. Dept., Washington, for a central heating, lighting and power plant, to be erected in this city under direction of this office. Bids may be submitted for the entire work or for any one of the following sections: Power plant building complete, with steel stacks; boilers; generating apparatus; pumping equipment; condensers; coal and ash handling apparatus; steam and water piping; switching gear; tunnels; substation apparatus, etc. Prospective bidders should immediately submit application for plans and specifications, stating portion of work upon which they desire to bid. Date for opening of bids not yet stated.

Concrete Grandstand—Madison, Wis.—M. E. McCaffrey, Secy. Regents of the University of Wisconsin, writes with regard to the proposed concrete grandstand, that no plans are as yet available for this structure. The present Legislature will probably be asked for an appropriation for a stadium.

Elevator—Milwaukee, Wis.—Bids desired until Jan. 22 by Oscar Wenderoth, Superv. Archt., Washington, D. C., for installing, complete, an electric freight elevator in appraisers' storehouse, Milwaukee.

Steel Trusses—Panama.—Bids desired until Jan. 29 by Maj. F. C. Boggs, Corps Engrs., U. S. A., General Purchasing Officer, Isthmian Canal, Washington, D. C., for steel trusses, etc., according to Circular 894.

Proposals

For Proposals Advertised see Pages 44 and 45.

WATERWORKS.

Bids Close.		See Eng. Record.
Jan. 19.	Mains, Shaker Heights, O.	Dec. 26
Jan. 20.	Pumping Units, Phoenix, Ariz.	Jan. 9
Jan. 20.	Castings, Boston, Mass.	Jan. 16
Jan. 20.	Standpipe, Etc., Sweetwater, Tex.	Jan. 16
Jan. 21.	Pipe, Columbus, O.	Jan. 16
Jan. 21.	Water Softening Plant in Public Building, Buffalo, N. Y.	Jan. 16
Jan. 22.	Pump, St. Louis, Mo.	Jan. 16
Jan. 29.	C. I. Pipe, Hawthorne, N. J.	Jan. 16
Jan. 29.	Well at Reformatory, Bedford Hills, N. Y.	Jan. 16
Jan. 29.	Extensions, Columbia, S. C.	Jan. 9
Feb. 1.	Reservoir, Joliet, Ill.	Jan. 16
Feb. 1.	System, Redford, Mich.	Jan. 16
Feb. 3.	Extension, Anna, Ill.	Jan. 16
Feb. 3.	Bonds, Rector, Ark.	Jan. 16
Feb. 3.	Wells, Rector, Ark.	Jan. 16
Feb. 6.	Water Supply for Bldgs., Springfield, O.	Jan. 16
Feb. 8.	Reservoir, Fitchburg, Mass.	Jan. 16
Feb. 9.	Sedimentation Basin, Philadelphia, Pa.	Jan. 16

Adv. Jan. 16.

SEWERAGE AND SEWAGE DISPOSAL.

Bids Close.		See Eng. Record.
Jan. 19.	Shaker Heights, O.	Dec. 26
Jan. 19.	Toronto, Ont.	Jan. 16
Jan. 19.	Augusta, Ga.	Jan. 16
Jan. 20.	Bakersfield, Cal.	Jan. 16
Jan. 27.	Rockford, Ill.	Jan. 16
Jan. 29.	Columbia, S. C.	Jan. 9
Feb. 1.	Valley Falls, Kan.	Jan. 16
Feb. 2.	Sec. 18 (Southerly Portion), Newark, N. J.	Jan. 16
Feb. 3.	Bonds, Rector, Ark.	Jan. 16

Adv. Jan. 16.

BRIDGES.

Bids Close.		See Eng. Record.
Jan. 19.	Wayne, Neb.	Jan. 9
Jan. 19.	Maryland	Jan. 16
Jan. 22.	Escanaba, Mich.	Jan. 16
Jan. 22.	Bradentown, Fla.	Jan. 9
Jan. 23.	Concord, N. H.	Jan. 16
Jan. 25.	Kearney, Neb.	Jan. 2
Jan. 25.	Seattle, Wash.	Jan. 16
Jan. 25.	Pittsburgh, Pa.	Jan. 16
Jan. 26.	Greenville, Ill.	Jan. 16
Jan. 28.	Ottawa, Ont.	Dec. 26
Feb. 1.	Salina, Kan.	Jan. 16
Feb. 1.	Zanesville, O.	Jan. 16
Feb. 3.	Chehalis, Wash.	Jan. 9
Feb. 5.	Columbus, O.	Jan. 16
Feb. 12.	Calgary, Alta.	Jan. 16
Feb. 23.	Portland, Ore.	Jan. 16

Adv. Jan. 16.

PAVING AND ROADS.

Bids Close.		See Eng. Record.
Jan. 19.	Shaker Heights, O.	Dec. 26
Jan. 19.	Sulphur Springs, Tex.	Dec. 26
Jan. 19.	Maryland	Jan. 9
Jan. 19.	Great Falls, Mont.	Jan. 16
Jan. 19.	Maryland	Jan. 16
Jan. 19.	Philadelphia, Pa.	Jan. 16
Jan. 20.	Alexandria, Va.	Jan. 9
Jan. 20.	Baltimore, Md.	Jan. 16
Jan. 20.	Brooklyn, N. Y.	Jan. 16
Jan. 21.	Wilkes-Barre, Pa.	Jan. 16
Jan. 21.	Galveston, Tex.	Jan. 16
Jan. 22.	Texas	Jan. 2
Jan. 23.	Lockport, N. Y.	Jan. 16
Jan. 23.	Royal Oak, Mich.	Jan. 16
Jan. 23.	Ashtabula, O.	Jan. 16
Jan. 23.	Pontiac, Mich.	Jan. 16
Jan. 27.	Greenville, Tex.	Dec. 26
Jan. 27.	Flint, Mich.	Jan. 9
Jan. 27.	Troy, O.	Jan. 16
Jan. 27.	Manhattan Beach, Cal.	Jan. 16
Jan. 28.	New Albany, Ind.	Jan. 9
Jan. 29.	Mt. Gilead, O.	Jan. 9
Jan. 30.	Louisiana	Jan. 9
Jan. 30.	Lima, O.	Jan. 16
Feb. 1.	Chehalis, Wash.	Jan. 9
Feb. 1.	Indiana	Jan. 16
Feb. 2.	Indiana	Jan. 16
Feb. 4.	Bay City, Ore.	Dec. 26
Feb. 6.	Chehalis, Wash.	Jan. 16
Feb. 10.	Seattle, Wash.	Jan. 16
Feb. 15.	Marshalltown, Ia.	Jan. 16

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Bids Close.		See Eng. Record.
Jan. 19.	Pier, Michigan City, Ind.	Dec. 26
Jan. 19.	Earth Levee, Augusta, Ga.	Jan. 16
Jan. 20.	Levee and Ditch Work, Quincy, Ill.	Dec. 26
Jan. 20.	Ditches, Bemidji, Minn.	Dec. 26
Jan. 20.	Dredging, Baltimore, Md.	Jan. 9
Jan. 20.	Centrifugal Pumps, Minidoka, Idaho	Jan. 9
Jan. 22.	Dredging, New York, N. Y.	Dec. 26
Jan. 23.	Structural Steel for Pier, Panama	Jan. 2
Jan. 25.	Electrical Apparatus, Minidoka, Idaho	Jan. 9
Jan. 26.	Lock and Dam, Maysville, Ky.	Dec. 26
Jan. 29.	Ditch, Stillwater, Minn.	Dec. 26
Jan. 30.	Lock Gates, Wheeling, W. Va.	Jan. 2
Feb. 2.	Contr. 28 — State Canal Wk., Albany, N. Y.	Jan. 9
Feb. 3.	Irrigation Wk., Payson, Utah	Jan. 9
Feb. 4.	Drain, Gonzales, La.	Jan. 2
Feb. 5.	Dam, etc., Harrisonburg, La.	Dec. 5
Feb. 8.	Drainage, Elsberry, Mo.	Jan. 16
Feb. 9.	Steel Hull for Derrick Boat, Cincinnati, O.	Jan. 16
Feb. 10.	Irrigation, Oakdale, Cal.	Jan. 9
Feb. 11.	Dredging, New York, N. Y.	Jan. 16
Feb. 15.	Electric Hoist, Philadelphia, Pa.	Jan. 9
Feb. 19.	Pumping Station for Drainage Dist., Quincy, Ill.	Jan. 16
Feb. 24.	Valves, etc., for Dry Dock No. 1, Panama	Jan. 9
Feb. 24.	Pump. Plant for Dry Dock, Panama	Jan. 9
———	Piling, Concrete Wk., Etc., Buffalo, N. Y.	Dec. 12

Adv. Dec. 12, 19.

PUBLIC BUILDINGS AND SCHOOLS.

Bids Close.		See Eng. Record.
Jan. 18.	Ft. Mason, Cal.	Jan. 16
Jan. 19.	St. Louis, Mo.	Dec. 19
Jan. 19.	Belleville, N. J.	Jan. 9
Jan. 19.	Oakland, Cal.	Jan. 16
Jan. 20.	Duluth, Minn.	Jan. 2
Jan. 20.	New Britain, Conn.	Jan. 9
Jan. 20.	Boston, Mass.	Jan. 9
Jan. 21.	Warren, O.	Jan. 16
Jan. 21.	Ft. H. G. Wright, N. Y.	Dec. 26
Jan. 21.	Binghamton, N. Y.	Jan. 9
Jan. 21.	Boston, Mass.	Jan. 9
Jan. 21.	Hackettstown, N. J.	Jan. 9
Jan. 21.	Minneapolis, Minn.	Jan. 16
Jan. 22.	Uvalde, Tex.	Dec. 19
Jan. 22.	Boston, Mass.	Jan. 9
Jan. 25.	Ennis, Tex.	Dec. 26
Jan. 25.	Brooklyn, N. Y.	Jan. 16
Jan. 26.	McCook, Neb.	Dec. 26
Jan. 26.	Socorro, N. M.	Jan. 9
Jan. 26.	Willoughby, O.	Jan. 16
Jan. 27.	Washington, D. C.	Jan. 9
Jan. 28.	Seattle, Wash.	Jan. 16
Jan. 29.	Chanute, Kan.	Dec. 26
Jan. 29.	New Haven, Conn.	Jan. 16
Jan. 30.	Mohawk, N. Y.	Dec. 26
Jan. 30.	Thiells, N. Y.	Jan. 16
Jan. 31.	Bartow, Fla.	Jan. 2
Feb. 1.	Fresno, Cal.	Jan. 9
Feb. 1.	Bridgeport, Conn.	Jan. 16
Feb. 1.	Cooperstown, N. D.	Jan. 16
Feb. 2.	Bath, N. Y.	Jan. 9
Feb. 4.	San Antonio, Tex.	Jan. 9
Feb. 5.	Huntington, W. Va.	Jan. 16
Feb. 6.	Orono, Ont.	Jan. 16
Feb. 8.	Tiffin, O.	Dec. 26
Feb. 8.	Lima, O.	Jan. 16
Feb. 16.	Cincinnati, O.	Dec. 12
Feb. 18.	Lincoln, Neb.	Jan. 9
Feb. 20.	Covington, Tenn.	Jan. 16
Feb. 27.	Miles City, Mont.	Jan. 9
Mar. 1.	Champion, O.	Jan. 9
Mar. 6.	Lawton, Okla.	Jan. 9

Adv. Jan. 16.

PRIVATE BUILDINGS.

Bids Close.		See Eng. Record.
Jan. 15.	Toronto, Ont.	Jan. 9
Jan. 19.	Atchison, Kan.	Jan. 16
Jan. 20.	East Liverpool, O.	Dec. 26
Jan. 23.	Young America, Minn.	Jan. 16
Feb. 15.	New Castle, Pa.	Jan. 9
Mar. 25.	Wilmington, Del.	Jan. 9

NEW INDUSTRIAL PLANTS.

Bids Close.		See Eng. Record.
Feb. 1.	Minneapolis, Minn.	Jan. 16
Feb. 1.	Wausau, Wis.	Jan. 16

MISCELLANEOUS.

Bids Close.		See Eng. Record.
Jan. 18.	Hardware in Armory, Albany, N. Y.	Jan. 16
Jan. 19.	Face Cutting for Stone, New York, N. Y.	Jan. 2
Jan. 19.	Street Cleaning, St. Louis, Mo.	Jan. 9
Jan. 21.	Mail Chute, Cleveland, O.	Jan. 2
Jan. 22.	Elevator, Milwaukee, Wis.	Jan. 16
Jan. 23.	Crane, Pearl City, T. H.	Dec. 26
Jan. 23.	Cement, Leavenworth, Kan.	Jan. 9
Jan. 29.	Steel Trusses, etc., Panama.	Jan. 16
Feb. 10.	Steel Dump Scows, Panama.	Jan. 9
Feb. 13.	Revolving Cranes, Norfolk, Va.	Jan. 9
Feb. 16.	Incinerator Plant, Toronto, Ont.	Jan. 9
Feb. 17.	Steel Rails, Etc., Melbourne, Australia	Jan. 9
Feb. 17.	Railroads, Melbourne, Australia	Jan. 9
Feb. 27.	Steel Towers, Washington, D. C.	Jan. 9
———	Fire Alarm, Etc., Ladysmith, Wis.	Dec. 26

Adv. Dec. 26 to Jan. 9.

★*Items marked thus give the names of parties awarded contracts.*

NEW CONSTRUCTION ACTIVITIES

The rate of increase of steel orders has fallen off somewhat. This, however, coming as it does before there had been any undue expansion in the iron trades comparable to the boom in the early weeks of 1914, indicates that the demand will continue to grow on a solid basis. That the present indications of substantial buying have not been of a mere ink and paper character is shown by the increased forces employed in the steel industries. Many tin plate and rolling mills which had been closed are resuming. Most mills are increasing their forces, and several are running on full time. There are subsurface indications of considerable buying from abroad. That the cement business did not suffer so serious a decline as the steel industry is indicated by the preliminary figures of the U. S. Geological Survey. Shipments for 1914 only fell off 2.2 per cent from those of 1913, and while stocks have increased, apparently, over 14 per cent, the total cement at the mills would be exhausted by about seven weeks' shipment at the 1914 rate.

The bond market continues to absorb good securities at a gratifying rate, and money seems to be a little easier.

Buildings

Quite a number of building contracts of some size are noted, implying activity in this line all over the country. The most important is the $5,000,000 Lehigh Valley terminal at Buffalo, on which bids are soon to be asked. Several building contracts have been awarded in Philadelphia, and also a large school building at Cleveland. Plans have been prepared for a half million dollar structure at Dallas, Tex. Bids are desired in Newark for erecting a $700,000 market. From Holyoke, Mass., Pittsburgh, Detroit, Racine, Wis., St. Paul, Lynchburg, Va., and Atlanta notices of buildings costing over $100,000 each have been received. Only that in Atlanta has yet been let.

Bridges and Paving

The Pennsylvania will spend $750,000 in rebuilding the bridge over the Susquehanna at Harrisburg. The only other large item is at Cleveland, where bids will be asked soon on a 9,000-ton steel viaduct. Several smaller projects are noted, including two street bridges at Vancouver, B. C., which together will cost $400,000. The preliminary report of the office of Public Roads indicates that over fifty million dollars will be available for State highway work in 1915. A contract has been awarded at Harriman, Tenn., for $270,000 worth of road work. Seattle expects to advertise paving work to cost $700,000. Several towns have sold sizable issues of road bonds. Items under St. Paul, Savannah, Duluth, Minn., and Greenville, Pa., will interest bidders.

Municipal Work

Bids are desired in New York, San Antonio and Indianapolis for considerable sewer work. At Portland, Ore., and Indianapolis bids have been opened on sewer work to cost over $150,000 and $114,000, respectively. Bids have been opened on two sewer contracts in Baltimore to cost about $98,000. Allen Hazen has been definitely retained to design waterworks improvements at St. Paul estimated at $650,000. A contract let at Corpus Christi, Tex., calls for considerable cast-iron pipe, as does one on which bids are asked at Kalamazoo, Mich. Billings, Mont., has sold bonds for waterworks to cost $450,000, and there are several other items, including one of bids desired for waterworks at Peoria, Ill.

Railroads and Miscellaneous

It is reported that financial arrangements are complete for constructing the $2,000,000 interurban terminal at Dallas. The Pennsylvania will spend at once $500,000 enlarging its yards at Midland, Pa., and plans have been prepared for grade crossing work in Seattle which will cost over $450,000. Toronto has voted a bond issue for a $340,000 street car line. San Diego, Cal., has sold bonds for $375,000 which will be used in harbor improvements. Contracts for a ditch at Ada, Minn., including twenty-seven steel bridges, have been awarded. The Commissioner of Docks of New York is in the market for 500,000 cu. yd. of rough stone, and the U. S. Reclamation office at Denver is closing contracts for 145,000 bbl. of cement.

WATERWORKS.

Items Arranged Geographically

Fitchburg, Mass.—Bids will be opened Mar. 2 (extension of date from Feb. 8), as advertised in Engineering Record of Jan. 16 by Bd. Water Comrs. (Thos. P. Sheldon, Pres.) for constructing Ashby reservoir. There are some changes in the quantities given in issue of January 16th, the principal items now being as follows: Clearing and grubbing 60 acres; earth excav., 52,200 cu. yds.; rock excav., 6,800 cu. yds.; concrete masonry, 3,870 cu. yds.; steel reinforcing bars, 179,000 lbs.; stone paving, 7,250 sq. yds. Metcalf & Eddy, Engrs., 14 Beacon St., Boston.

Brooklyn, N. Y.—Bids desired until Jan. 28 by Park Bd., New York City (Cabot Ward, Pres.), for furnishing, delivering and installing c. i. water pipe, hydrants, gates, etc., in Prospect Park, Boro Brooklyn, together with all work incidental thereto. Security, $2,500.

Middletown, N. Y.—Bids desired by J. C. Degnan, Comr. Pub. Safety, until Feb. 20, for laying water pipe. J. A. Korscher, Consulting Engineer, Middletown.

New York, N. Y.—See "Miscellaneous."

Harrisonburg, Va.—Council is reported to have decided to construct a filtration plant to cost $40,000.

Asheville, N. C.—Bids desired until Feb. 12 by F. L. Conder, City Clk., for furnishing and laying about 5,850 ft. Class B 10-in. c. i. water pipe, with necessary specials, gates and hydrants; also bids for furnishing f.o.b. cars Asheville, 5,850 ft. Class B 10-in. c. i. water pipe, about 186.5 tons.

New Smyrna, Fla.—F. A. Newell, City Clk., writes citizens voted Jan. 12 to issue $47,000 bonds for construction of water works, from plans of J. B. McCrary Co., of Atlanta, Ga.

Tampa, Fla.—The Tampa Water Works Co. reported to have decided to construct a reservoir of 3,500,000 gals. capacity.

Bowling Green, Ky.—F. J. Nolan, City Clk., writes city has in contemplation construction of a sedimentation basin.

Bradenburg, Ky.—City considering an additional supply from Lake Denton.

Louisville, Ky.—Local press reports state bids desired until Jan. 27 by Bd. Pub. Wks. for installing 26 fire hydrants.

Barberton, O.—City Council considering issue of $17,000 bonds for water main extensions.

Bowling Green, O.—See "Public Buildings."

Bridgeport, O.—Citizens voted June 15 to issue $23,500 bonds for water works and sewerage system.

Contracting News

Of Special Interest to Engineers, Contractors, Builders and Manufacturers of Engineering and Building Supplies

Canton, O.—Bids reported desired until Jan. 25 by Director Pub. Safety (H. H. Heingartner, Secy.) for a triple combination motor pumping engine.

Chillicothe, O.—A resolution has been passed by City Council directing H. M. Redd, City Engr., to prepare plans, specifications and estimates for water works, to be owned by city.

Cincinnati, O.—Bids desired until Jan. 29 by Dir. Pub. Safety (Edw. P. Durr, Secy.) for furnishing and delivering hub and spigot pipe, flange pipe, special castings, miscellaneous castings, valves and fire hydrants for high-pressure system.

★**Cleveland, O.**—City Bd. of Control has approved contract with the McClintic Marshall Co., Pittsburgh, Pa., for structural iron work for Division Ave. pumping station, at $65,170.

Dayton, O.—Pollard & Ellms, of Cincinnati, have completed plans for enlargement and extension of the city water works and estimates cost at $530,500.

East Palestine, O.—This city is contemplating securing a new water supply about 1 mile to the northwest, but nothing definite has yet been done. C. E. Vaughn, City Engr.

East Youngstown, O.—City Council considering question of constructing municipal water works. Engineers, Chester & Fleming, Pittsburgh, Pa.

Lowellville, O.—Village Council is again considering construction of municipal water works, to cost $30,000.

Napoleon, O.—State Bd. of Health is reported to have ordered this city to install filtration plant within 18 months.

★**New Boston, O.**—Contract awarded Jan. 11 for completion of water distribution system as follows: Material, to Standard Supply Co., Portsmouth, at $16,468; labor, to Phillips & Watkins, at $7,882. Thos. D. O'Neal, City Clk.

Toledo, O.—Plans and specifications for a water main across bed of Maumee River have been prepared by G. A. Gessner, Supt. Water Wks.; the main will connect new east side mains with Bway. pumping station, will be 2713 ft. in length of 24-in. pipe. Contract will be let so work may start in early spring.

Hammond, Ind.—Bids reported desired until Jan. 27 by Bd. Pub. Wks. for furnishing, delivering and installing and constructing pump house, 2 centrifugal pumps and motors, complete with piping control, etc.

Kalamazoo, Mich.—Bids desired until Jan. 25 by C. L. Miller, City Clk., for about 200 tons Class B American Standard Water Works c. i. pipe, 4 to 6 in. inclusive and reduced short pattern fittings for same. To be delivered as wanted during year. City reserves the right to increase this amount to 400 tons more or less up to May 1, 1915.

Schoolcraft, Mich.—O. A. Fellows, City Clk., writes election will soon be held to vote $22,000 bonds for construction of water works to include elevated tank of 60,000 gal. capacity and 8, 6 and 4-in. pipe.

East Peoria, Ill.—Bids desired until Feb. 8 by Village Bd. for furnishing material and constructing a system of waterworks, advertised in Engineering Record. Arthur Marshall Morgan, Engr., Harris Trust Bldg., Chicago.

Lewistown, Ill.—Bids desired until Feb. 1 by City Council, for furnishing material and installing for water works system approximately, 7,115 ft. 4 and 8 in. pipe Class B. c. i. pipe, 2,100 lbs. special castings, 2 8 in. and 5 4 in. gate valves, an 80,000 gal. steel tank on a ¾ post steel tower, a 350 gal. per min. compound, noncondensing, direct acting, duplex steam pump with all necessary pipe work and fittings and 48 cu. yds. concrete in foundation.

Paris, Ill.—Fleming & Babbitt, of Champaign, have been engaged as consulting engineers for the proposed reservoir and filtration plant, for which citizens recently voted to issue $90,000 bonds. J. C. Riedel, City Clk.

Sullivan, Ill.—Citizens reported to have voted to issue $20,000 bonds to improve municipal water works.

Pella, Ia.—A. C. Kuyper, City Clk., writes citizens voted Jan. 12 to issue $10,000 bonds to extend water mains.

Gilbert, Minn.—Frank A. Bownan, Village Engr., writes the question of securing a permanent water supply being considered; it is proposed to drill well or run about 1500 ft. of 10-in. main to a lake and install electric pump.

Kimball & Fay, of Chisholm, are reported to have been selected as consulting engineers for the above waterworks; cost about $30,000.

Kinney, Minn.—Council reported to be considering construction of water works.

St. Paul, Minn.—Later reports state that Allen Hazen, of New York, has been engaged to make a complete investigation of the city water system and to outline improvements necessary.

St. Paul, Neb.—An election will probably soon be held to issue $23,000 bonds to build municipal electric light plant and improve city pumping station.

Larned, Kan.—It is proposed to install 2 motor-driven turbine pumps of 18,000 gal. capacity ea. and 6600 ft. 4-in. mains with 2 hydrants. L. B. Burgers, City Clk. and Water Supt.

Billings, Mont.—Bonds in the sum of $450,000 reported sold to be used for the purchase of water works and the improvement and extension of same.

Caruthersville, Mo.—An election has been called for Jan. 26 to vote on issuing $62,000 bonds for a new sewerage system and extension and improvements of water works from plans of Frank L. Wilcox, St. Louis.

Glasgow, Mo.—City proposes installing a centrifugal pump, direct connected to electric motor of 432,000 gals. per 24 hrs. against head of 50 ft. R. L. Blacet, Supt.

Harrison, Ark.—Albert C. Moore, of Joplin, Mo., is reported to be preparing plans for water works. Election Feb. 22.

Luxora, Ark.—Two settling tanks of 100,000 gals. capacity are proposed by Luxora Water & Light Co. C. B. Wood, Gen. Mgr.

Austin, Tex.—City Council has appropriated $10,000 for improving and extending water service and $10,000 for street improvements.

Coleman, Tex.—A new reservoir is contemplated. Jerry Lewis, Supt. Water Wks.

★*Items marked thus give the names of parties awarded contracts.*

★**Corpus Christi, Tex.**—Contracts for water works improvements Subdivisions A, B and C, from plans of Alex. Potter, 50 Church St., New York (bids opened Jan. 8), has all been awarded to Louis Lock, of Monroe, La., at the following prices, on c.-i. pipe basis:

Subdivision A—1100 cu. yds. dry excav., 50 cts.; 210 cu. yds. excav., $1; 286 cu. yds. Class A concrete, $5.50; 100 cu. yds. reinforced concrete, $11; 27 cu. yds. reinforced concrete, $11; 620 bbls. cement, $2.20; 8500 lbs. steel, 4 cts.; 230 ft. 4-in. pipe, 76.5 cts.; 94 ft. 10-in., $1.575; 174 ft. 12-in., $2.10; 11 ft. 14-in., $2.625; 76 ft. 16-in., $3.15; 60 ft. 20-in., $3; 7000 lbs. castings, .425 cts.; 77 ft. 12-in. vitr. pipe, $1.20; 3 filters, lump sum, $10,950; surge tank, lump sum, $975; meter, $1,175; sterilizer, $1,500; installing 2 pumps, $525; 1 new pump, $11,550; building, $7,134; 2500 lbs. steel and iron, 4 cts.; doors, etc., lump sum, $100; cofferdam, etc., lump sum, $1,200; total, including gate valves, $42,794.

Subdivision B—60,344 ft. c.-i. pipe, Class B, $2.73; 19,220 ft. c.-i. pipe, Class C, $3.17; 3000 cu. yds. excav., 35 cts.; 36,000 lbs. specials, 5 cts.; 110 cu. yds. concrete, $6.50; 155 bbls. cement, $2.20; 3500 ft. timber, $30; total, including valves, $231,268.

Subdivision C—Water tower, at $12,150.

Cordell, Okla.—Bids desired by J. Reid, City Clk., until Jan. 28 for construction of municipal water works, to include 2 pumps 360 gals. per min., 54,800 ft. pipe, valves, etc. Cost $75,000. Benham Eng. Co., Engrs., Oklahoma City.

Portland, Ore.—City Comrs. are reported to have instructed City Engineer to prepare plans for constructing a 16-in. concrete water main in Irvington Dist.; cost $80,000.

Portland, Ore.—It is reported that bids will be called for at once by Comr. of Public Utilities for about 500 water meters.

Corning, Cal.—Bonds in the sum of $30,000 reported voted for extension of water and sewer system. E. L. Randall, City Clk.

Dunsmuir, Cal.—The California-Oregon Power Co. (H. S. Walther, Gen. Supt., Medford, Ore.) will lay about 2400 ft. of 6-in. and 2400 ft. 8-in. mains with gate valves, service taps and specials; cost about $10,000.

Williams, Ariz.—A new dam, capacity 250,000,000 gal. to cost about $75,000, will be constructed by the Williams Water & Electric Co., Trust & Savings Bldg., Los Angeles, Cal. (B. R. Ellis, Gen. Mgr.)

Hespeler, Ont.—M. E. Jardine, Town Clk., writes citizens voted $35,000 bonds for construction of water works.

Port Dalhousie, Ont.—The Village Clerk writes plans and specifications are now being prepared for the proposed water works; cost $50,000.

Ottawa, Ont.—Bids will be called for shortly for supplies for 1915 both for waterworks and Board of Works. F. C. Askwith, City Engr.

Panama.—Bids desired until Jan. 28 by Maj. F. C. Boggs, Corps. Engrs., U. S. A., General Purchasing Officer, Isthmian Canal, Washington, D. C., for furnishing according to Circular 896 soil pipe and fittings, brass pipe fittings, flush pipe, brass cocks, sheet lead, etc.

SEWERAGE AND SEWAGE DISPOSAL.

Items Arranged Geographically

Hartford, Conn.—Bids desired by Bd. of Contract and Supply until Jan. 26 for constructing 2900 ft. 10, 12, 15, 18, 20 and 24-in. pipe on Franklin Ave.; cost $11,400. R. N. Clark, City Engr.

Brooklyn, N. Y.—The Bd. of Estimate of New York, has authorized construction of proposed Classon Ave. relief sewer, and bids will soon be advertised; cost about $904,000.

Kenmore, N. Y.—The State Bd. of Health is reported to have approved plans for a sewer system. Matthew D. Young, Village Pres.

Long Island City, L. I., N. Y.—Bids desired Jan. 28 by Maurice E. Connolly, Boro. Pres., for constructing sewers and appurtenances in Atlantic, Greenwood and Lefferts Aves., Maple and Hickory Sts., also constructing receiving basins and appurtenances in several streets. Total security $13,600.

New York, N. Y.—Bids desired until Feb. 2 by Douglass Mathewson, Pres. Boro. Bronx, for constructing sewers and appurtenances in Throggs Neck Boule., Pennyfield and Chaffee Aves., with overflows from Throggs Neck Boule. and Chaffee Ave. to the East River, and from Throggs Neck Boule. and Dewey Ave. to Long Island Sound, together with all work incidental thereto. Security $175,000.

Bids desired until Jan. 29 by Marcus M. Marks, Pres. Boro Manhattan, for alterations and improvements to sewers in Park Ave. and 44th St. Security $6,500.

Philadelphia, Pa.—Bids desired until Feb. 4, by M. L. Cooke, Director Dept. Pub. Wks., for constructing Gunners Run relief sewer in Indiana St. 10 ft. diam. brick sewer, Schedule "A," advertised in Engineering Record. Appropriation $200,000.

Bids desired until Jan. 27 by M. L. Cooke, Dir. Dept. Pub. Wks. for reconstructing Mantua Creek Sewer, reconstructing inlets, and for test borings.

Plans for the Gunners Run Relief Sewer advertised in this issue are now on file at the New York office of the Engineering Record.

Baltimore, Md.—Following are 4 lowest bids recently received by Sewer Comn. (Calvin W. Hendrick, Ch. Engr.):

Sanitary Contract 142, covering Sect. 3 of the Jones Falls interceptor: M. O'Herron & Sons, $35,941; Slack & Slack, $38,053; Ryan & Reilly, $39,694; Jas. Ferry & Sons, $43,132.

Sanitary Contract 141, covering lateral sewers in Dist. 5-B: B. F. Sweeten & Sons, $63,825; M. O'Herron & Sons, $66,869; Slack & Slack, $68,334; Garessa Bros. & Co., $68,717.

Baltimore, Md.—Bids desired for constructing sanitary sewers in section bounded by Winchester, Poplar Grove, Ashburton Sts. and Riggs Ave. For information apply to Edw. V. Coonan & Co., 231 Courtland St.

Wilmington, Del.—Bids desired until Jan. 26 by City Council for $75,000 street and sewer bonds.

★**Louisville, Ga.** — Contract reported awarded to Macon Eng. & Constr. Co., Macon, for extension of city sewer system from plans of W. Hopson Goodle, of Macon.

New Smyrna, Fla.—Citizens voted Jan. 12 to issue bonds for construction of sewer system. J. B. McCrary & Co., of Atlanta, Ga., have charge of preliminary work.

Birmingham, Ala.—The City Commission has adopted an ordinance providing for construction of a sanitary sewer in Enon Ridge Dist., to cost $12,500.

Okolona, Miss.—Survey has been completed and report and estimate of cost for proposed system of sewerage has been submitted to Council by Frank L. Wilcox, of St. Louis, Mo. An election on bond issue of $58,000 will be called immediately.

Bridgeport, O.—See "Water Works."

East Palestine, O.—This city will in the Spring take steps for construction of a sanitary seyer system. C. E. Vaughn, City Engr.

Hamilton, O.—F. E. Weaver, City Engr., is reported to have completed plans for constructing sewer in E. Hamilton and Lindenwald, Dist. No. 1, to cost $22,851, and Dist. No. 2, $24,731.

Kent, O.—Citizens voted Jan. 12 to issue $90,000 bonds to pay for a portion of sanitary sewer system.

Leetonia, O.—City Council reported to be considering the construction of sewage disposal plant, and new sewers and paving on Somers St. Plans have been prepared by Winthrop Pratt, of Cleveland, and Carl Bossart, of Washingtonville. Will be submitted to vote.

★**Indianapolis, Ind.**—Contract was awarded by Bd. Pub. Wks. Jan. 11 to Sheehan Constr. Co., Indianapolis, for constructing Warman Ave. main sewer of segmental block at $7.73 per lin. ft.; total cost, $114,504. Other bids received (price given per ft.): Wm. Jones, Pittsburgh, Pa., $7.77; American Constr. Co., Indianapolis, Ind., $8.02; John H. Cahill, Louisville, Ky., $8.17.

Bids will probably be received about Feb. 15 for E. 10th St. main sewer to include about 1550 ft. 12 to 18-in. pipe sewer 16½ ft. deep and 4425 ft. 3 to 6-ft. brick or concrete pipe 18½ ft. deep; cost about $44,500. Chas. A. Brown, Engr. in Charge of Sewers.

Flint, Mich.—D. E. Newcombe, City Clk., writes bids are desired until Jan. 25 for furnishing manhole and catchbasin castings, cement and sewer pipe for ensuing year.

Grand Rapids, Mich.—We are informed that the city will construct a sewage disposal plant for the entire city, and a consulting sanitary engineer will be engaged.

Lockport, Ill.—Lowest bid opened Jan. 7 by Bd. Local Improvements for constructing sewer system reported submitted by Yale & Raven, of Chicago, at $59,995. A. S. Calkin, Asst. City Engr.

Pontiac, Ill.—Assessments are being made for construction of sewers with necessary manholes, Y junctions, connections and appurtenances in Riverview, Riverside and Driving Park additions to Pontiac.

Milwaukee, Wis.—Bids will soon be asked for construction of about 5 miles of brick and concrete sewers. This is first construction work by the Sewerage Commission for collecting sewage in city. The whole work will embrace about 35 miles of intercepting sewers and with disposal plant has been estimated to cost from $10,000,000 to $12,000,000. T. Chalkley Hatton, Chief Engr., Sewerage Comn., City Hall, may be addressed for detail information.

Minneapolis, Minn.—The State Legislature will be petitioned by city for permission to issue $200,000 bonds to be used for construction of a trunk sewer to connect proposed new industrial tract in Northeast Minneapolis with the Southeast sewer system.

★**Carthage, Mo.**—Contract for constructing sewers here has been awarded to the Plumer Adams Co., of Springfield, at $16,861.

Springfield, Mo.—Bids desired by City Clerk Feb. 2 for work in Sewer Dist. 35 to include 3481 lin. ft. 10-in. and 9769 ft. 8-in. pipe, average depth 8.5 ft., and in Dist. 30 about 9495 lin. ft. 8-in. pipe, average depth 7.5 ft.

Houston, Tex.—City Council has passed on first reading an ordinance providing for issue and sale of $1,950,000 recently authorized municipal bonds, to be used as follows: $50,000 for sanitary sewers; $500,000 for drainage; $500,000 for wharf and warehouse improvements on the ship canal; $200,000 for schools and $250,000 for park improvements.

Houston Heights, Tex.—The City Council is reported to be considering an issue of $100,000 bonds to be used for an additional storm drainage system. Jas. B. Marmion, Mayor.

San Antonio, Tex.—Bids desired until Feb. 1 by Fred Fries, City Clk., for completing abandoned contract for constructing sanitary and storm water sewers as follows: Cherry St. Sanitary Intercepting Sewer, Sect. 20, to include 8312 ft. 12 to 20-in. vitr. sewer pipe, 13,010 ft. 30 to 60-in. vitr. segmental blocks, etc.; Grove Ave. storm sewer, Sect. 112, to include 1950 ft. 12 to 18-in. No. 2 D. S. vitr. pipe; 7060 ft. 64 to 76-in. plain monolithic concrete, etc.; Cherry St. storm sewer, Sect. 113, to include 4200 ft. No. 2 D. S. vitr. pipe, 11,970 ft. plain monolithic concrete, etc. Hans Helland, City Engr.

Milwaukie, Ore.—There is reported to be a movement on foot here, looking to construction of a sewer system; cost about $140,000.

Portland, Ore.—City Council has rejected bids recently received for construction of Sunnyside trunk sewer in Alder St., and will readvertise. City Engineer's estimate, $19,602.

Local press reports state that following are totals of bids opened by City Council Jan. 14 for constructing the Willow St. extension of the E. Stark St. trunk sewer (a) reinforced concrete pipe, (b) monolithic, (c) reinforced concrete: Guthrie, McDougall Co., (a) $163,234, (b) $181,769; Giebisch & Joplin, (a) $154,382, (b) $161,894; Montague-O'Reilly Co., (b) $162,450; Jas. Kennedy, (a) $172,663; J. F. Shea, (a) $162,973, (c) $172,722; Oregon Independent Paving Co., (a) $160,461, (c) $165,853; Wm. Lind, (a) $148,639, (c) $169,468.

Corning, Cal.—See "Water Works."

Marysville, Cal.—W. M. Meek, City Engr., is reported to have completed plans for 5-ft. reinforced concrete sewer to extend the drainage system of city from 9th and E Sts. to a point north of D and 14th Sts.

South Pasadena, Cal.—Bids desired until Jan 27 by B. V. Garwood, City Clerk, for constructing a section of South Pasadena sewer system, located partly in cities of Los Angeles, Alhambra, and South Pasadena. Work includes 24,032 ft. 8 to 20 in. vitr. pipe and 5,372 ft. 27 in. brick sewer, Ys, etc. John MacMillan, City Engr.

Ontario, Cal.—Bids reported desired until Feb. 1 by R. O. Brackenridge, City Clk., for $55,000 bonds, the proceeds of which will be used for constructing sewers.

BRIDGES.

Items Arranged Geographically

Greenfield, Mass.—Plans have been prepared for constructing concrete bridge over Green River; cost about $6,500.

Olean, N. Y.—Common Council appointed committee to investigate cost and location for constructing bridge over Allegan River.

Oswego, N. Y.—We are informed that Oswego and Volney recently voted on location for and type of bridge at Minetto. The Benson Ave. site was decided on; the bridge will be of concrete, with exception of lift span over barge canal. The Concrete Steel Eng. Co., New York, are preparing plans for concrete portion of bridge. There will be 4 arches and 1 lift span; total length being approximately 600 ft., width 30 ft. Contract will not be let until after bond election.

Harrisburg, Pa.—The Cumberland Valley Railroad, a part of the Pennsylvania System, will within a short time start work on an arch bridge to replace present steel deck truss bridge over Susquehanna River at Harrisburg. The new bridge will cost approximately $750,000, and will be 4000 ft. in length. The present pier will be utilized and a number of additional ones built. In connection with construction of new bridge the Cumberland Valley Railroad will build undergrade crossings at Front and 2d Sts. in city of Harrisburg. The bridge will have 46 spans and will carry 2 tracks.

Baltimore, Md.—Plans for constructing Hanover St. Bridge over south branch Patapsco River have been approved by War Dept. engineers.

Washington, D. C.—Bids desired until Feb. 17 by Lieut. Col. H. C. Newcomer, Corps Engrs., U. S. A., Washington, D. C. for substitution of a through span for deck span in the Pennsylvania Ave. Bridge across Anacostia River, Washington, advertised in Engineering Record.

Ellerson, Va.—Bids desired by G. P. Coleman, State Highway Comr., Richmond, Jan. 28, for construction of a reinforced concrete bridge 41 ft. long over Chickahominy River, near Ellerson, bet. Henrico and Hanover Counties, Va.

★**Eufaula, Ala.**—Contract for constructing steel bridge with concrete floor and abutments over Barbour Creek on Clayton-Eufaula Rd. has been awarded by Bd. Revenue to J. H. Scruggs and C. E. Ward, Birmingham, at $6,000.

Montgomery, Ala.—Bd. Revenue Montgomery County and Bd. Comrs. Elmore County voted in facor of constructing bridge over Tallapoosa River on or near Lower Wetumpka Rd., cost about $50,000.

Lake Charles, La.—Late reports state that all bids opened by Police Jury for constructing 60 concrete bridges and culverts on highways west of river have been rejected.

Clinton, Tenn.—Anderson County Court voted to construct 3 steel bridges over Clinch River.

Cleveland, O.—The City Bridge Dept. will this month advertise for the steel work of Sect. No. 1 of Clark Ave. viaduct, about 9,000 tons. F. D. Richards, City Bridge Engr.

Marion, O.—County Comrs. sold $20,500 bridge bonds.

★**Covington, Ind.**—Contract for constructing bridge, steel superstructure, with concrete abutments and piers, over Wabash River, awarded by County Comrs. to Vincennes Bridge Co., Vincennes, at $28,250.

Chicago, Ill.—Following are 4 lowest bids opened by the Sanitary Dist. of Chicago Jan. 14 to furnish, fabricate and deliver metal work for superstructure of highway bridges crossing the Calumet Sag Channel at W. 82d St.—(a) W. 82d St., 188,000 lbs.; (b) Burr Oak Ave., 562,000 lbs.: Chicago Bridge & Iron Co., Chicago, (a) $3,780, (b) $11,550; Toledo Bridge & Crane Co., Toledo, (a) $3,898, (b) $13,400; Hansel Elcock Co., Chicago, (a) $3,970, (b) $12,450; Kenwood Bridge Co., Chicago, (a) $4,004; Milwaukee Bridge Co., Milwaukee, Wis., (b) $12,744; King Bridge Co., Cleveland, O., (b) $12,950.

Colona, Ill.—C. Older, Ch. Engr. Illinois Highway Comn., at Springfield, has submitted plans to Henry County Bd. Supervs. at Cambridge for bridge across Tock River in Colona; cost about $30,000.

Peoria, Ill.—Plans being prepared by Hedrich & Cochrane, Engrs., Kansas City, Mo., for viaduct over railroad tracks at S. Adams St.

Rock Island, Ill.—Bids reported desired until Feb. 1 by E. D. Fischer, Secy. Bd. Co. Supervisors, for $30,000 bridge bonds.

Sorento, Ill.—Bids desired until Jan. 30 at Central Hotel, Sorento, on alternate plans for either a steel bridge or reinforced concrete bridge to be built between LaGrange Township, Bond County, and East Fork Township, Montgomery County, known as Mt. Moriah Church Bridge, 60 ft. span, 16 ft. roadway. Engineer's estimate, including piles for steel bridge, $3,180; for concrete bridge, $3,210; also constructing reinforced concrete bridge between Shoal Creek Township, Bond County and Walshville Township, Montgomery County, known as Pence Bridge, 40 ft. span, 16 ft. roadway. Engineer's estimate, $1,140. R. O. Young, Co. Supt. Highways, Sorento. P. C. McArdle, Acting State Engr., Springfield.

Superior, Wis.—E. B. Banks, City Engineer, estimates cost of constructing 21st St. Ave. Viaduct at $89,000.

Muscatine, Ia.—City Council voted in favor of constructing bridge over Mississippi River, cost $500,000.

Nevada, Ia.—Bids desired until Jan. 29 at office of County Auditor, for constructing 191 reinforced concrete bridges and culverts and a steel bridge with concrete floor.

Ivanhoe, Minn. — See "Paving and Roads."

★**Anthony, Kan.**—Contracts awarded by County Comrs. Jan. 11 for constructing bridges as follows: Four concrete bridges to Wm. McElvoy & Co., Ft. Scott, $12,612, and 7 concrete roadways to Stanley-Mackey Constr. Co., Hutchinson, at $4,119.

Salina, Kan.—Bids desired until Feb, 2 by A. C. Anderson, County Clerk, Salina, for constructing a reinforced concrete bridge with sidewalks across Smoky Hill River on Iron Ave., Salina, advertised in Engineering Record.

Little Rock, Ark.—Plans for widening from 21 to 32 ft. and strengthening free bridge were submitted to J. Asher, County Judge, by Little Rock, Pine Bluff & Eastern Traction Co., cost about $250,000.

Harrisburg, Tex.—County Engineer at Houston has been directed to prepare plans and specifications for steel bridge to be constructed over Brays Bayou at Harrisburg for county; cost $15,000.

Grand Junction, Colo.—Bids desired until Jan. 25 by J. H. Miner, Project Mgr., U. S. Reclamation Service, Grand Junction, for furnishing steel service bridges from Grand River Diversion Dam, Grand Valley Project, Colo. The finished material to be furnished shall consists of 7 steel service bridges, complete with

★*Items marked thus give the names of parties awarded contracts.*

structural steel shoes, hand railings, etc. About 45 tons metal work will be required.

★**El Reno, Okla.**—Contract awarded Jan. 7 to the Oregonia Bridge Co., Oklahoma City, for construction of 4 steel bridges for Canadian County, at El Reno.

Seattle, Wash.—Plans completed by A. P. Denton for 2 steel bridges, each 120 ft. span, to be constructed at Renton Junction, and one at mouth Duwamish River.

Tacoma, Wash.—Chicago, Milwaukee & St. Paul Ry. Co. (C. F. Loweth, Ch. Engr., Chicago, Ill.) contemplates constructing 180-ft. steel bridge at East "T" St.; cost, $50,000.

★**Glendale, Cal.**—Contract for constructing 72-ft. span steel girder bridge with concrete floor over Canada Boule. awarded to Mesmer & Rice, 230 Marsh Strong Bldg., Los Angeles, at $28,200.

Monterey, Cal.—See "Paving and Roadmaking."

Pima, Ariz.—Bids reported desired until Feb. 1 by County Commissioners at Solomonsville for constructing bridge over Gila River, 1 mile from Pima; length of span, 425 ft.; north approach, 100 ft.; south approach, 150 ft.; roadway, 16 ft. wide. Benj. Blake, Co. Clk.

Vancouver, B. C.—Plans have been filed by Great Northern Ry. Co. (A. Hogeland, Ch. Engr., St. Paul, Minn.) with City Engineer for constructing Clark Drive and Woodland Drive bridges over Grandview Gulch. Structures to be steel and concrete and cost about $400,000.

PAVING AND ROADS.

Items Arranged Geographically

Boston, Mass.—Bids desired until Jan. 31 by L. K. Rourke, Comr. Pub. Wks., for repairing asphalt or bitulithic pavt., also artificial stone sidewalks in any street in Boston not under guaranty, when ordered to do so by Commissioner, between Feb. 1, 1915 and Jan. 31, 1916.

East Providence, R. I.—Bids desired until Feb. 2 by Town Council for 100,000 granite paving blocks delivered to Fox Point, R. I. F. V. Waterman, Engr., Providence.

Brooklyn, N. Y.—Bids desired until Jan. 27 by L. H. Pounds, Boro Pres., for regulating and repaving with permanent asphalt pavement, Hicks and 95th Sts., in all 3,330 sq. yds. pavt., and with Grade 1 granite pavement, Front St. and Hudson Ave., in all 11,090 sq. yds. pavt., etc.

Buffalo, N. Y.—Common Council voted to pave Warring, Delavan, Wallace, Frontenac, Desoronto, Lyndhurst, Parkside Aves., Tacoma, Sussex Sts., Boehm Pl. and Admiral Rd.

Bids desired until Jan. 27 by Dept. Pub. Wks. (F. G. Ward, Comr.) for paving Court Pl., Homer Ave., Churchill and several other streets.

New York, N. Y.—See "Hydraulic Construction and River Improvement."

Chesterfield, N. J.—Bids were opened by Township Com. of Chesterfield Township Jan. 16 at Stead's Hotel, Crosswicks, for constructing waterbound broken stone road with bituminous dressing from end of present stone road, Village of Chesterfield, to township line between townships of Chesterfield and North Hanover, a distance of 11,575 ft., and lowest bid was submitted by Jos. Jingola, Trenton, as follows: Excav. per cu. yd., $1; foundation per cu. yd., 40 cts.; surface per lin. ft., 20 cts.; underdrain per lin. ft., 20 cts.; total $23,365. Totals of next 3 lowest bids: R. Hafeman, Freehold, $23,861; J. L. Le Compt, Lakewood, $23,890; Paul J. Snyder Co., Philadelphia, Pa., $24,679; Thos. J. Barrett, Roebling, N. J., $25,725. Jas. Logan, County Engr., Mt. Holly.

Freehold, N. J.—All bids opened Jan. 4 by Bd. Chosen Freeholders for paving with amesite Norwood Ave. in Deal and Allenhurst have been rejected by County Comrs.

Long Branch, N. J.—See "Hydraulic and River Improvement."

Passaic, N. J.—Bids desired until Jan. 25 by Wm. A. Reid, Dir. Dept. Streets and Public Improvements, for furnishing material and improving Bond St., requiring approximately 3,470 sq. yds. asphalt macadam, 1,840 lin. ft. concrete curb and gutter.

Greenville, Pa.—Bids desired until Feb. 8 by J. M. Hittle, Boro, Secy., for furnishing material and grading and paving about 10,000 sq. yds and curbing and guttering about 8,000 lin. ft. advertised in Engineering Record.

Baltimore, Md.—Bids desired until Feb. 2 by Paving Comn. addressed to the Bd. of Awards, care of City Register, for paving with vitr. brick, Contract 106 on various streets, with sheet asphalt and granite block, repaving No. 107, Baltimore St.; granite block paving, 108, Lombarde St.; sheet asphalt, vitr. block and granite block paving, Contract 109, on various streets; advertised in Engineering Record. R. Keith Compton, Chmn. & Consulting Engr Paving Comn.

Washington, D. C.—Bids desired until Jan. 26 by Dept. of Agriculture, Washington (D. F. Houston, Secy.) for furnishing and delivering at Arlington Farm Siding, Rosslyn, Va., and at Alexandria, Va., approximately 41,500 gal. oil asphalt, 41,500 gal. fluxed native asphalt, and 4000 gal. refined.

Wilmington, Del.—City Council voted to issue $400,000 bonds for constructing pavements in city.

Wilmington, Del.—See "Sewerage and Sewage Disposal."

Cumberland, Md.—About $150,000 bonds has been sold by City Council for street improvements.

Asheville, N. C.—Press reports state that contracts awarded by Bd. Comrs. for constructing Asheville-Weaverville Highway have been rescinded.

Hot Springs, N. C.—The Madison County Highway Comn. at Marshall is making surveys for 6.9 miles of road leading out from Hot Springs. The work will consist of grading and draining alone. There will probably be about 63,000 cu. yd. of excav. in the 6.9 miles. J. B. Clingman, County Road Engr., Marshall.

Wilmington, N. C.—City Council and County Comrs. voted to issue $150,000 road improvement bonds.

Columbia, S. C.—About $60,000 bonds for paving streets in Columbia have been sold by city.

Savannah, Ga.—It is reported about $50,000 is to be spent for street pavements in city.

Meridian, Miss.—County Bd. Supervs. reported to have postponed action on sale of $50,000 bonds for road improvements (bids opened Jan. 6) until some time in February.

Chattanooga, Tenn.—Construction of Walden Ridge section of Hoosierland to Dixie Highway is in contemplation according to reports. C. E. James said to be interested.

Clinton, Tenn.—Anderson County Court voted $40,000 bonds for completing pike work on Oliver Springs and New River Pike.

★**Harriman, Tenn.**—Solomon Constr. Co., Harriman, and Oliver & Hall, Marysville, have been awarded contract for constructing Morgan County Pike Rd., at $270,000.

Jackboro, Tenn.—The Comrs. of Campbell County are reported to have authorized issue of $150,000 bonds to be used for constructing roads. For further information address A. B. Mahan, of Jellico, Secy. Highway Com.

Louisville, Ky.—Bids desired until Jan. 25 by Bd. Pub. Wks. (Roger McGrath, Secy.), for paving Madison St.; probable cost $80,000.

Bids desired same place as above until Jan. 27 for repaving Market and Lytle Sts. with vitr. blocks. Probable cost, $5,500.

Canton, O.—W. Bender, County Surveyor, writes plans for the following roads have been prepared and will be let some time in the early spring by the Comrs. of Stark County at Canton:

Bituminous macadam—Navarre-Justus Rd., 2.49 miles, 15 ft. wide, cost $28,220; Alliance-Bolton Rd., 1 mile, 16 ft. wide; Magnolia-Sparta Rd., 3.12 miles, 15 ft. wide, cost $38,853; and Waco-Mapleton Rd., 1.9 miles, 16 ft. wide, cost $21,998.

Brick paving — Massillon - Millersburg Rd., 3.6 miles, 15 ft. wide, cost $76,495; Louisville-Freeburg Rd., 2.5 miles, 15 ft. wide, $53,400. Estimated cost is on concrete curb, concrete base and brick metalling with tar filler.

Cleveland Heights, O.—Bids desired until Feb. 15 by H. H. Canfield, Clk., at his office, 309 Beckman Bldg., Cleveland, for improving Exeter and E. Monmouth roads by grading, draining and paving with brick, asphalt or macadam.

Columbus, O.—It is reported that about $5,000,000 will be spent for constructing roads by State Highway Dept. during 1915.

★**Galion, O.**—Contract awarded Jan. 13 for macadamizing Galion Bloomingrove Road and Hershmer Road to Sousley & Britton, Ada, at $42,023 and $10,935, respectively. C. O. Higgins, Co. Aud.

Hamilton, O.—Bids will probably be received in 60 or 90 days for purchase of $175,000 bonds to be used for paving N. 5th, Hanover and other streets, with asphalt, in all 70,000 sq. yds., on concrete foundation, limestone and cement curb, 40,000 lin. ft. Chas. Manny, City Clk. F. E. Weaver, City Engr.

Lancaster, O.—It is proposed to pave with brick Walnut, Broad, Main, Winding and Perry Sts., at a total cost of $38,350. J. A. Mayer, Dir. Pub. Service; Julian Griggs, City Engr.

Oakwood, O.—Bids desired until Feb. 1 by Geo. B. Keller, Village Clk., for furnishing material, grading and paving with brick, wood block or some other hard paving material Farhills, Harmon and Oakwood Aves.

Indiana.—Bids desired by County Commissioners for constructing roads as follows:

Until Feb. 1:

Fowler, for constructing gravel road in Center Township, 16,040 ft. in length. Warren Mankey, Co. Aud.

Paoli, 2 gravel roads in French Lick Township. E. A. Palmer, Co. Aud.

Until Feb. 2:

Vincennes, 4 gravel roads. Jos. L. Muentzner, Co. Aud.

Marion, grading, draining and paving 3 roads in Van Buren Township and one road in Center Township.

Until Feb. 3:

Muncie, a crushed stone road in Delaware Township and 5 gravel roads, 3 in Harrison Township and one each in Washington and Union townships.

Benton Harbor, Mich.—Bids will be received about Feb. 15 by B. Spaulding, City Clk., for paving Columbus Ave. with brick on 5-in. concrete foundation; cost $17,000. A. R. Wightman, City Engr.

Big Rapids, Mich.—Election is to be held on issuing about $200,000 road bonds for county.

Paw Paw, Mich.—This village will build 3000 sq. ft. concrete pavement in the spring of 1915. D. P. Smith, Engr., Paw Paw.

Le Roy, Ill.—City Council Jan. 13 adopted ordinance providing for grading, curbing and paving of Center St. with vitr. block on Portland cement concrete foundation; combined Portland cement concrete curb and gutter. A. L. Bailey, Mayor.

★**Kenosha, Wis.**—G. Barth, Member of Assessment Com., writes that contract was awarded Jan. 8 for grading and paving Ridge St. with vitr. brick asphalt filler and concrete curb and gutter to Chris. Peterson Constr. Co., of Kenosha, at $20,300. (Barr brick to be used.) Other bids: Waukeegan Improv. Co., Waukeegan, Ill., $20,858; Birdsall Griffith Co., Racine, Wis., $22,171, and Geo. R. Wade Constr. Co., Kenosha, $22,090.

Stoughton, Wis.—The City Clerk writes it is proposed to pave about 12 blocks with waterbound stone macadam, including 4th, W. Union and South Sts.

Duluth, Minn.—The City Council has ordered repaving of Superior St., from 16th to 23d Ave. E., with asphalt wearing surface on a concrete base and with granite toothing blocks along street car rails; estimated cost, $50,643; also improvement of Grand Ave. at an estimated cost of $164,394 for brick, $174,844 for creosoted block or $190,594 for sandstone paving, including curb and storm sewer drainage; length of improvement, 8925 ft. John Wilson, City Engr.

Ivanhoe, Minn.—Bids desired until Feb. 10 by Karl A. Hansen, Co. Aud., for Jobs 1, 2 and 3, State Rd. No. 1, Towns of Royal and Marble, requiring 40,023 cu. yds. excavation, etc.; 11,776 lin. ft. turnpiking, 44,500 lin. ft. construction dragging, 19 plain concrete and 7 reinforced concrete culverts, etc.; also constructing State Bridge No. 1275, State Rd. No. 1, Town of Royal, 30-ft. span, 30-ft. roadway; concrete floor on reinforced concrete foundation.

St. Cloud, Minn.—Resurfacing St. Germain St. and 5th Ave., paving of 9th and Breckenridge Aves., is in contemplation by city.

St. Paul, Minn.—Reported bids desired by Co. Comrs. for $80,000 worth of road rock.

City will expend about $1,000,000 in paving about 25 miles, or 350,000 sq. yds., including paving of Marshall, Dayton and Raymond Aves., with sandstone or creosoted block, on 5-in. Portland cement concrete, with sandstone, granite or concrete curb. J. E. Carroll, Supt. of Construction and Repair. Oscar Claussen, City Engr.

The Mayor reports in favor of construcing driveway along river.

McPherson, Kan.—The City Comrs. have ordered plans made for about 23 blocks of asphaltic concrete paving. H. A. Rowland, City Engr.

Austin, Tex.—See "Water Works."

★**San Antonio, Tex.**—Contracts for paving awarded as follows (price given per sq. yd.): East side Alamo Plaza, creosote blocks, to Roach-Manigan Co., Memphis, Tenn., at $3.05; Commerce St., with creosote blocks, to Rushmore & Gowdy, Kansas City, Mo., at $3.18½, and Brazos St., with concrete with bitumen top, to O. C. Chapin, Kansas City, Mo.

Bids reported desired until Jan. 25 by F. Fries, City Clk., for paving portions of various streets with asphalt, bitulithic and brick on concrete base and 2-in. sand cushion and constructing concrete curb.

Bellingham, Wash.—Bd. County Comrs. will spend about $135,000 for constructing hard surface roads.

Kalama, Wash.—Bids desired until Feb. 2 by County Commissioners for grading, clearing, etc., 6000 ft. of Gabrielson Hill change on Lewis River Rd.

Kelso, Wash.—County Comrs. have in contemplation construction of road from Kelso to Illwaco; cost about $150,000.

Prosser, Wash.—Bids desired until Feb. 2 by County Comrs. for improving Benton County Permanent Highway No. 4, commonly known as Kennewick-Finley Rd. L. L. Lynn, Co. Aud.

Prosser, Wash.—Bids will be received about Feb. 1 by County Comrs. for constructing Kennewick-Finley Road.

Seattle, Wash.—Bd. Pub. Wks., it is reported, will award contracts for paving 14th Ave. and grading and curbing 44th Ave. S. some time in February; cost, $48,000.

The Comrs. of King County (A. P. Denton, Co. Engr.) contemplate advertising for $700,000 or $800,000 worth of work the coming year from the $3,000,000 Bond Issue Fund, and the Permanent Highway Fund of the State of Washington, and probably $50,000 or $100,000 from the Road and Bridge Fund, for minor contracts.

McMinnville, Ore.—About $15,000 is to be spent for repairing Grande Ronde Rd.

California.—Bids desired until Feb. 1 State Highway Comn., Sacramento (Austin B. Fletcher, Engr.), for constructing state highway in Butte County, from Nelson to Chico, about 12.6 miles, to be built of Portland cement, requiring 15,950 cu. yds. Class B Portland cement concrete pavements, 40,000 cu. yds. excavation with-out classification, 2300 lin. ft. guard rail, etc.

Eagle Rock, Cal.—Bids desired until Feb. 1 by City Clerk for improving a portion of several streets and alleys, including Sycamore, Townsend, and Forest Aves., and will include 270,000 sq. ft. 5-in. macadam, 8,500 lin. ft. cement curb, 50 ft. retaining wall, etc. C. R. Brawner, City Engr., 402 Higgins Bldg., Los Angeles.

San Diego, Cal.—Following bids opened by city for paving 4th St.: California-Arizona Constr. Co., $36,567, and Fairchild-Gilmore Wilton Co., Pacific Electric Bldg., Los Angeles, $36,936.

San Francisco, Cal.—Bd. Awards voted to pave Corbett Ave., cost about $19,000.

★**Point Grey, B. C.**—Contract for paving University Ave. awarded by city to Cotton Co., Carter Cotton Bldg., Vancouver, B. C., at $45,000.

STREET CLEANING AND GARBAGE DISPOSAL.

Items Arranged Geographically

Boston, Mass.—Bids desired until Jan. 25 by L. K. Rourke, Comr. Pub. Wks., for furnishing watering carts for watering and oiling streets in Dists. from 1 to 10 inclusive.

Shelton, Conn.—Bids reported desired until Feb. 9 by Geo. E. Barlow, Warden, for removal and disposal of garbage.

Long Island City, L. I., N. Y.—Bids desired until Jan. 29 (readvertisement) by Borough President for the general construction of the destructor plant at Flushing and Metropolitan Aves., Ridgewood, Boro. Queens. Security, $30,000.

Joliet, Ill.—Bids desired until Mar. 6 by Town Highway Comrs., for an oil spreader tank and a water sprinkler tank and truck, or a combination oil spreader and water sprinkler. A. J. Lindgren, Town Clk.

Portland, Ore.—Local press reports state that City Commissioner is preparing preliminary plans for the construction of an additional garbage incinerator, and contract will soon be let; cost about $275,000.

Salt Lake City, Utah.—Geo. W. Snow, Ch. of Bureau of Mechanical Inspection, has recommended construction of new garbage crematory.

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Items Arranged Geographically

Revetment Work—New London, Conn.—Bids desired until Mar. 1 by Maj. G. B. Pillsbury, Corps Engrs., U. S. A., New London, for bank revetment in the Connecticut River, Conn., advertised in Engineering Record.

Dock — Stamford, Conn.—Lowest bid opened Dec. 10 for constructing dock in connection with disposal works was submitted by Jas. A. Daly, of Port Chester, N. Y., at $7,000. Contract not yet let. Engineer, aJs. C. Harding, 170 B'way, New York.

Wharf—Brooklyn, N. Y.—Bids desired until Feb. 20 by Quartermatser, Ft. Hamilton, Brooklyn, for repairs to wharf at this post, advertised in Engineering Record.

Piers, etc.—New York, N. Y.—New piers, pier extensions, and granite paving all improvements planned by R. A. C. Smith, Comr. of Docks, and requiring expenditure by city of $841,500 can be begun as quickly as the Bd. of Estimate authorize the necessary issue of corporate stock according to a letter the Commissioner has filed with Board, in which he states that this work should be done at once.

Repairs to Bulkhead—Philadelphia, Pa.—Bids desired until Feb. 1 at office of Lighthouse Inspector, Philadelphia, for repairs and extensions to timber groynes and bulkhead at Cape Henlopen, Delaware.

Steel Lock Gates—Pittsburgh, Pa.—Bids were opened Dec. 16 at U. S. Engrs. Office, Pittsburgh, for furnishing and erecting steel lock gates, gate recess covers and gate engine pit covers for Dam 10, Ohio River, and lowest bid was submitted by Independent Bridge Co., Pittsburgh, as follows: 593,000 lbs. structural steel lock gates, 5.03 cts.; 141,500 lbs. structural

★*Items marked thus give the names of parties awarded contracts.*

steel covers, 1.5 cts.; 11.4 M ft. oak timber, $75; total $32,805. Next 3 lowest bids: Penn Bridge Co., Beaver Falls, Pa., $34,-532; Lawrence D. Weaning, care of The Variety Iron & Steel Wks. Co., Cleveland, O., $36,608; King Bridge Co., Cleveland, O., $41,417.

Wharves—Washington, D. C.—Bids desired until Feb. 11 by Comrs. D. C. (O. P. Newman, Chmn.) for reconstructing wharves at municipal fish wharf and market, located on Water St., southwest, between 11th and 12th Sts., advertised in Engineering Record.

Dock, Etc.—Jacksonville, Fla.—We are informed with regard to work contemplated by Port Comrs. on appropriation of $1,500,000 for municipal dock purposes that the work of bulkheading is being completed; a contract for dredging and filling has been let and work will soon begin. Contract for other necessary features will be let from time to time as the work progresses. The dates of letting, estimates of cost, etc., cannot be given at this time. F. W. Bruce, Ch. Engr., Montgomery Corse, Chmn.

Hydro-Electric Plant—Birmingham, Ala.—The Peoples Hydro-Electric Power Co. reported formed, with a capital of $20,000 by R. H. Cobb of Birmingham, Clem Jowers of Ohatchie, and others, to develop power of Coosa River at Ten Island shoals and Wisemont and Leota shoals, and erect dam across river, power to be furnished to cities of Jefferson County and also Gadsden, Anniston and Talladega.

★**Levee Work—Memphis, Tenn.**—Contracts reported awarded for constructing about 700,000 cu. yds. of levee work in the upper and lower St. Francis and White River levee districts, as follows: To. L. T. Callahan, Fulton, Ky., $26,225; T. G. Wood, Bruin, Ark., $30,000, and F. L. Carter, Marwell, Ark., $19,740.

Drainage—Wapello, Ia.—Press reports state that bids will be received by the Supervisors of Muscatine and Louisa Counties at Wapello, Feb. 15, for the purchase of $273,127 drainage bonds.

★**Ditch—Ada, Minn.**—Bids were opened Jan. 12 for constructing Judicial Ditch No. 2, for 470,000 cu. yds. excav., 30 miles road leveling, 27 bridges and 40 culverts and contracts have been awarded as follows: Union Drainage Co., Stephen, Minn., excav. of main ditch and laterals at 9 cts. per cu. yd. and $125 per mile for road leveling; Security Bridge Co., Minneapolis, for steel bridges at $1,175 ea.; M. R. Hussey, Crookston, concrete culverts, $336 ea.; Illinois Steel Bridge Co., St. Paul, metal culverts at $1.40 for 24-in. and $1.20 for 18-in. C. D. Simpson, Deputy Co. Aud.

Ditch—Bemidji, Minn.—Bids desired until Feb. 8 by J. L. George, Co. Aud., for constructing Judicial Ditch No. 27, about 30.15 miles long; yds. of dirt to be excavated, about 231,182 cu. yds.; total estimated cost of ditch being about $52,214, including highway.

Ditches—Jackson, Minn.—Bids reported desired until Feb. 3 by P. D. McKellar, Co. Aud., for constructing Judicial Ditches 32, 33 and 36 (all tile). Probable cost, $29,578, $54,002 and $5,842, respectively.

★**Ditch — St. James, Minn.** — Contract awarded Jan. 12 for constructing Judicial Ditch No. 8 to A. H. Solberg & Hans Shellum, of St. James, at $8,500. J. C. Jensen Co., Aud.

★**Ditch—Maryville, Mo.**—Contract reported awarded by Bd. County Superv. Jan. 8 for constructing Frayne, Stratford and Larson drainage ditches, to Jens Jensen, of Williams, at a total of $24,555; and for tile to the National Sewer Pipe Co., of Maryville, at $9,033.

Irrigation—Donna, Tex.—D. H. Barr, Secy., Donna Irrigation Dist. No. 1, of Hidalgo County, at Edinburg, writes that bond election will not be held for several months; cost of proposed work about $450,000. Engineer, C. S. Clark, of Donna.

Wharf, Etc.—Houston, Tex.—See "Sewerage and Sewage Disposal."

Irrigation — Olathe, Colo. — Bids were opened at the office of the U. S. Reclamation Service, Montrose, Jan. 5 for constructing Lower Selig Extension Canal and laterals, Uncompahgre Valley project, vicinity of Olathe and Delta Schedules 1 to 19, and following are bids received: (a) excav. per cu. yd. on all Schedules Classes 1, 2 and 3, (b) overhauled per cu. yd., (c) total cost: Reynolds-Ely Constr. Co., Springville, Utah, (a) 20.5 cts., (b) 2 cts., (c) $24,490; Maurice A. Wogan, Denver, Colo., (a) 21 cts., (b) 2 cts., (c) $25,077; Bate, Miller & Co., Springville, Utnh, (a) 21.75 cts., (b) 2 cts., (c) $25,-957; Orman Constr. Co., Montrose, Colo., (a) 21.75 cts., (b) 2 cts., (c) $25,957; Mendenhall, Straw & Bird, Springville, Utah, (a) 23.75 cts. (b) 2 cts., (c) $28,303; Geo. F. & R. E. Wear, Delta, Colo., bid only for Schedule 15 at (a) 17 cts., (b) 2 cts., (c) $775. Engineer's estimate, Excav. class 1, 20 cts.; class 2, 40 cts.; class 3, 80 cts.; overhaul, 2 cts.; grand total, $33,554.

Hydraulic Apparatus for Irrigation Work—Elephant Butte, N. M.—Bids reported desired until Feb. 5 by U. S. Reclamation Service, Federal Bldg., Los Angeles, for furnishing hydraulic apparatus for Elephant Butte dam, Rio Grande Project, New Mexico.

★**Drainage — Attalia, Wash.** — Contract for construction of a drainage system, serving 2500 acres in Attalia Dist., reported awarded to Jas. C. Broad, Spokane, at approximately $50,000. The Attalia Land Co. (Fred B. Grinnell, Mgr.), will supervise work.

Stone for Jetty—Lone Tree, Wash.—Bids desired until Feb. 10 by Maj. J. B. Cavanaugh, Corps Engrs., U. S. A., Burke Bldg., Seattle, for furnishing and delivering stone for jetty construction at Lone Tree.

Drainage, Etc.—Snohomish, Wash.—Co. Comrs. reported considering installation of concrete flood gates and a drainage system, to cost between $49,000 and $50,-000, on Grand Marsh, between Snohomish and Monroe.

Ditch—Tacoma, Wash.—At the election Dec. 12 on formation of proposed waterway district, for Julias Gulch Work, Chester Thorne, of National Bank, Tacoma; John Buffelen, of Buffelen Lumber & Mfg. Co.; I. N. Hague, of Hague Box & Lumber Co., were elected Commissioners, with L. A. Nicholson, of Fidelity Bldg., Tacoma, Eng. The approximate cost of the work is $350,000; location in Tacoma Harbor, one mile from terminals and yards of Chicago, Milwaukee & St. Paul Ry., and extends 2½ miles into undeveloped tide lands of harbor; designed principally to afford low-priced manufacturing sites with access to water and rail transportations. First proceedings will be condemnation or purchase of right of way and preparation of plans. A probable 6 months will elapse before construction can begin.

★**River Work—Tacoma, Wash.**—King and Pierce Counties, acting jointly for the Inter-County River Improvement, in deepening, widening and straightening the White-Stuck and Puyallup Rivers, have let two contracts as follows: To Tweeden & Marsh, Tacoma, for construction of a 20 in. hydraulic dredge, at $66,000, and to Cross, Rollins & Co., of Seattle, for dredging, dredge to be furnished by the Counties, 2,400,000 cu. yds. at 7.3 cts.; 600,000 cu. yds. at 10.95 cts. Unit prices for bulkheads are as follows: piling in place, 19½ cts. per lin. ft.; iron and steel, 4 cts. per lb.; lumber, $24 per M ft.; clearing and grubbing, $200 per acre; fir brush, $4 per cord. W. J. Roberts, Ch. Engr., Room 401, Court House, Tacoma.

Irrigation Work—Wenatchee, Wash.—Marvin Chase, of Seattle, is reported to be engineer for the Whitestone Irrigation Dist., which it is said will start work this summer on a system to cost about $1,000,000.

Reclamation Work—Salem, Ore.—The State and U. S. Reclamation Comrs. are stated to have completed reports and recommend that Benham Falls and Crane Prairie both be used as reservoir sites. The plan is said to be to reclaim 200,000 acres lying near the Tumalo Project and in the vicinity of the Towns of Madras, Culver, Opal City and Prineville. The Benham Falls lake will cover about 18,000 acres and the Cran Prairie Lake 6200 acres. The former project is estimated to cost $991,000 and the latter $152,000.

Grading for Levee Work—Bakersfield, Cal.—Bids desired until Feb. 8 by Bd. Superv. (I. L. Miller, Clk.) Bakersfield, for grading on the Wasco-Lost Hills Levee, about 3 miles.

Wharf—Richmond, Cal.—Later reports state that all bids recently received by City Council for constructing Municipal concrete wharf No. 1 have been rejected, and the Harbor engineers have been instructed to prepare new plans and specifications; cost about $270,000. A. C. Faris, City Clk.

Harbor Bonds—San Diego, Cal.—Harbor bonds in the sum of $375,000 reported sold.

★**Pier—San Francisco, Cal.**—Contract was awarded Jan. 14 by Bd. State Harbor Comrs., (L. Merle, Jr., Secy.) for constructing pier at foot Harrison St., to Healy Tibbitts Constr. Co., San Francisco, at $98,300.

Irrigation—Phoenix, Ariz.—The Arizona Land & Improvement Co. reported incorporated by John Schrock, Wichita, Kan.; Eugene Kelley, Los Angeles, Cal.; J. R. Dotweller and C. H. Rittenhouse, both of Phoenix, with a capital of $200,000, to install, equip and operate, etc., pumping plant for pumping water for use in reclamation and irrigation of lands, to construct dams, a system of canals, etc.

ELECTRIC RAILWAYS.

Items Arranged Geographically

Norwich, Conn.—Norwich, Colchester & Hartford Traction Co. chartered to build electric railway between Norwich, Bozrah, Lebanon and East Hartford.

Princeton, W. Va.—Princeton Power Co. plan to build 13 miles new track. S. J. Evans, Gen. Mgr., Princeton.

Charleston, S. C.—Plans being prepared by Charleston Consolidated Ry. & Light Co. to extend line to North Charleston.

West Palm Beach, Fla.—Application for charter made by Palm Beach & Everglades Ry. Co. to build 40 mile railway between West Palm Beach and Lake Okeechobee, Jas. A. Moore, Hotel Halcyon, Miami, Gen. Mgr.

Shreveport, La.—Plans being considered by Texas Louisiana Traction Co. to construct extension to Marshall. A. B. Blevins, Jefferson, Pres.

Columbus, O.—East Linden Electric Ry. Co. received franchise from County Comrs. for constructing line from Leonard Ave. line to East Linden; distance of 3½ miles.

Cedar Rapids, Ia.—About 4 miles track will be built by Cedar Rapids & Marion City Ry. Co.

Wichita, Kan.—Arkansas Valley Interburban Ry. Co. contemplates building 22 miles new track.

Casper, Wyo.—Work will begin in May on constructing 3½-mile line in Casper. Capital $100,000. J. B. Fleming, 40 Wall St., New York City, Pres.; Harley B. Beagle, Casper, Secy.

Beaumont, Tex.—Plans being prepared by Houston & Beaumont Interurban Ry. Co. to build line to connect Beaumont, Houston and Anahuac. Anson Miller, Anahuac, said to be interested.

Dallas, Tex.—It is reported by the Stone & Webster Eng. Co., Boston, Mass., that it has completed financial arrangements for immediate construction here of terminals for its interurban railway system, including erection of a passenger station and office buildings. The improvement will cost about $2,000,000.

Guthrie, Okla. — Preliminary arrangements being made by Oklahoma Ry. Co. to begin work on 17-mile extension between Edmond and Guthrie. Geo. W. Knox, Gen. Mgr., Oklahoma City.

Seattle, Wash.—Extension of Division "A" of Seattle St. Ry. into Fremont and Ballard to Market St. and Leary Ave. is contemplated; cost about $100,000.

San Francisco, Cal.—Plans being prepared by United Rys. Co. to build substation in Richmond Dist., San Francisco.

Sandpoint, Idaho.—Sandpoint & Interburban R. R. Co. (L. L. Durrin, Ch. Engr. Sandpoint) plans to build 5 mile line from Shoshone Falls to Twin Falls.

Toronto, Ont.—Citizens voted expenditure of $343,000 for civic car line from Canadian Pacific Ry. tracks at Yonge St. to B'way and Mt. Pleasant Ave.

RAILROADS.

Items Arranged Geographically

★**Harrisburg, Pa.**—Contract has been awarded by Pennsylvania R. R. Co., Philadelphia, to Brown, King Constr. Co., Franklin Bldg., Philadelphia, for grading, drainage system, and concrete retaining wall for proposed freight yard at Harrisburg, comprising the following approximate quantities: 53,000 cu. yds. excav., 300 cu. yds. foundation excav., 1,200 cu. yds. concrete retaining wall; drainage system of approximately: 300 lin. ft. 8-in., 1,750 lin. ft. 12-in., and 250 lin. ft. 24-in. t. c. pipe; 6 surface drains, 2 inlets, 4 manholes. Work to be completed by April 1, 1915; approximate cost $35,000.

Midland, Pa.—The Pennsylvania Lines west of Pittsburgh (Thos. Rodd, Ch. Engr., Pittsburgh) will spend $500,000 before May in doubling its yard capacity and improving facilities at Midland.

Palm Beach, Fla.—The Palm Beach & Everglade R.R. Co. is reported formed by H. G. Geer, W. H. DeCamara and T. J. Campbell, all of West Palm Beach, to construct a railroad from Palm Beach to Lake Okeechobees.

Seattle, Wash.—Preliminary plans have been prepared by City Engineer for grade separation work necessary at Argo Station, near Georgetown, which is estimated to cost between $450,000 and $500,000; to include construction of 1,800 ft. reinforced concrete double track tunnel under railroad tracks: the expense to be divided between Oregon-Washington Railroad & Navagation Co., Chicago, Milwaukee & St. Paul Ry. Co., Northern Pacific Ry. Co. and the Puget Sound Traction, Light & Power Co., of Seattle.

Spokane, Wash.—The Northern Pacific Railroad (A. R. Cook, Asst. Engr., Tacoma) recently filed a mortgage in Spokane County to secure a bond issue, part of which is said to be to provide funds for improvements.

PUBLIC BUILDINGS AND SCHOOLS.

Items Arranged Geographically

Boston, Mass.—Plans being prepared by E. P. Graham, 20 Beacon St., for a parochial school to contain 12 class rooms and an assembly hall.

★**Boston, Mass.**—Contract for erecting the building for Police Station No. 19 awarded to John Bowen at $55,333.

Cambridge, Mass.—City Council has appropriated $40,000 for repairs to the city home which was recently damaged by fire.

Fall River, Mass.—Bids reported desired until Jan. 25 by F. N. Corbett, Archt., 70 Bedford St., for erecting a 4-story and basement police station. Probable cost $185,000.

Holyoke, Mass.—Francis McSherry, Supt. of Schools, writes that the proposed new Lawrence School will be fireproof, 2 stories high, 180 x 260 ft. of red top brick and limestone; it will have 32 rooms, hall, gymnasium, showers, etc., and cost $225,-000. Architects G. P. Alderman & Co. of Holyoke. Plans not yet ready for bids.

Hopedale, Mass.—Bids desired by Town Clerk until Feb. 8 for erecting a 2 story 66x63 ft. fire department building from plans of Robt. Allen Crook, of Milford.

Worcester, Mass.—Mayor is reported to have accepted the plans of John T. Simpson, Newark, N. J., for the new North high school which is to cost $200,000.

★**Providence, R. I.**—Contract for erecting 5 story brick, stone and concrete fireproof textile school for the Rhode Island School of Design awarded to Norcross Bros., Worcester, Mass., Day & Klauder, Philadelphia, Pa., Archts.

Albany, N. Y.—Lewis F. Pilcher, State Archt., Capitol, recommends erecting an 11-story fireproof office building costing $1,250,000 to be used for offices for the State departments.

★**Glens Falls, N. Y.**—Contract for erecting the U. S. Post Office awarded to Geo. B. Willis & Co., New York, at $61,522.

★**Lockport, N. Y.**—Contract for erecting Union School (bids opened Dec. 29) awarded by Bd. Educ. to H. J. Wenzelberger, Phillipsburg, N. J., for the masonry and carpentry work at $55,809; plumbing, heating and ventilating to Mapes & Payne, Lockport, at $18,340, and electric wiring to Korff Electric Co., Lockport, at $2,170. Emmet Belknap, Clk. Bd. Educ

Long Island City, L. I., N. Y.—Bids desired until Jan. 29 (readvertisement) by Borough President for the general construction, etc., of a stable and section house for Bureau of Street Cleaning, Flushing and Metropolitan Aves., Ridgewood, Boro. Queens. Security, $25,000.

★**New York, N. Y.**—Contract for erecting a 2 story 69x139 ft. Wall St. branch post office awarded to J. H. Deeves & Bros., 103 Park Ave.; Foster & Gade, Archts., 15 W. 38th St.

Plans filed for 4 story brick hospital to be erected at Gunhill Roads, Bainbridge and Wayne Aves. and 210th Sts., for the Montefiore Home and Hospital, cost $200,-000. Buchman & Fox, and A. W. Brunner, 30 E. 42d St., Archts.

★Contract was awarded on bids opened Jan. 18 by C. B. J. Snyder, Supt. School Bldgs., to the Altoria Realty & Constr. Co., 3 E. 44th St., at $287,681, for general construction of School 54 on westerly side of Intervale Ave., bet. Chisholm and Freeman Sts., Bronx Boro. Other bids: T. A. Clarke Co., $295,700; Emerson Bldg. Co., $315,000, and John T. Brady & Co., $294,510.

Staten Island, N. Y.—Plans are to be prepared by Louis E. Jallade, 37 Liberty St., New York, for fireproof recreation building to be erected at Sailors Snug Harbor, to accommodate 400 sailors.

Hoboken, N. J.—Bids reported desired until Jan. 27 (readvertisement) by Mayor and Council for erecting fire station at 2d and Jefferson Sts.

Newark, N. J.—Bids desired until Jan. 29 (readvertisement) by Thos. J. Lee, Jr., Chmn. Bldg. Com., for erecting Centre Market on Market Plaza, north of Commerce St. Probable cost $700,000. Hooper & Co., Archts. and Engrs., 118 Market St.

★**Plainfield, N. J.**—Contract for erecting school on Evergreen Ave. awarded to John Lowry, of New York; heating, plumbing and ventilating to Geo. J. Tobin, Plainfield. Cost of building, complete, is to be about $80,000.

Trenton, N. J.—Bids reported desired for erecting a 2-story brick Home for Indigents for the city at a cost of $50,000. M. Haupt, Archt.

Allentown, Pa.—Bids desired until Feb. 3 by Bd. Trus., Homeopathic State Hospital for Insane, near Allentown (Alonzi F. Walter, Secy.), for erecting 2 buildings for tubercular patients and an isolation cottage for said hospital.

Braddock, Pa.—Bids reported desired until Feb. 1 by Chas. W. Milligan, Archt., Wood and Ross Sts., Wilkinsburg, for erecting 4-story and basement, 40 x 150 ft., addition to Braddock General Hospital. Probable cost $75,000.

Carbondale, Pa.—Plans being prepared by E. H. Davis, Connell Bldg., Carbondale, for 3-story brick and stone high school to be erected at a cost of $100,000.

Lancaster, Pa.—School Bd. reported taking steps to erecting the new Boys' high school.

South Brownsville, Pa.—Bids desired until Feb. 2 at office of And. P. Cooper, Archt., First Natl. Bank Bldg., Uniontown, for erecting 2-story brick and terra cotta high school for School Dist. of South Brownsville.

★**Philadelphia, Pa.**—Contracts for general construction school buildings (bids opened Jan. 8) by Bd. Educ. (J. Horace Coek, Supt. of Bldg.) have been awarded as follows:

★Longfellow School, general construction, Thos. Reilly, 1616 Thompson St., Philadelphia, $126,525. Lowest bids (not

★Items marked thus give the names of parties awarded contracts.

yet let), heating, John J. Nesbit, $29,154; plumbing, Walker & Kepler, $5,863, also electrical work, $12,149.

★Southwark School, general construction, W. R. Dougherty, 1608 Sansom St., Philadelphia, $69,000. Lowest bids (not yet let), heating and plumbing, S. Faith, $9,537 and $1,057, respectively.

★Addition to Fitler School, general construction, Thos. Reilly, $35,314. Lowest bid (not yet let), heating, S. Faith, $5,100; plumbing, Buhlman Bros., $3,039.

Reported Architects Zantzinger, Borie & Medary, 139 S. 15th St., Philadelphia, have been authorized to receive bids for erecting for Valley Forge Memorial Chapel, for which there is a fund of $50,000 available.

Site at 32d St. and Lancaster Ave. has been selected for the armory which the State Armory Bd., Harrisburg, intends erecting in this city to house the local cavalry troops, and is to cost $200,000.

Bids reported desired until Jan. 25 by Trus. Univ. of Pennsylvania for erecting a 3-story brick, stone, steel and concrete hospital building in West Philadelphia according to plans by Brockie & Hastings, 1713 Sansom St.

Pittsburgh, Pa.—Com. on Supplies and Property has approved plans for the South Hills High School. The building complete is to cost $265,000, but only one wing will be erected at this time at a cost of $100,000.

Williamsport, Pa.—Horace Trumbauer, Land Title Bldg., Philadelphia, is architect for a group of buildings, brick, stone and steel, which are to be erected at the Industrial Home for Women at a cost of $250,000.

Easton, Md.—Reported bids desired for erecting 4-story brick and hollow tile Emergency Hospital according to plans by Guy King & Co., Philadelphia.

Wilmington, Del.—Bids desired about Mar. 1 by Bd. of Educ. for the erection of a 3 story brick school with stone and terra cotta trimming, 87x181 ft., to cost about $140,000. Archt. A. Edw. Rhodes, 9 Masonic Temple.

Ft. Myer, Va.—Bids desired until Feb. 11 by Quartermaster, Ft. Myer, for constructing a corps barracks and a 3 set non-commissioned officers' quarters at this post, advertised in Engineering Record.

Richmond, Va.—Lowest bid opened Jan. 4 by Bd. Police Comrs. for erecting 2-story, 60 x 140 ft., fireproof, brick and stone police station from plans of Carneal & Johnstone, Chamber of Commerce Bldg., has been submitted by John T. Nuckols, of Richmond; probable cost, $45,000.

Fairmount, W. Va.—Reported bids desired by State Bd. Regents, Charleston, for erecting building at the Normal School, Fairmont. Frank Morris, Secy., Charleston.

Kingston, N. C.—Following are four lowest of the bids opened Jan. 11 by Superv. Archt., Washington, D. C., for constructing U. S. Post Office at Kingston: (a) limestone; (b) sandstone: Westchester Eng. Co., White Plains, N. Y. (a), $51,900, (b) $56,000; J. L. Crouse, Greensboro, N. C., (a) $54,887, (b) $56,900; W. M. Sutherland Bldg. & Contr. Co., St. Louis, Mo., (a) $55,949; Torbert Constr. Co., Hampton, Va., (a) $56,349; (b) $60,349; W. H. Fissell & Co., New York, (b) $59,700.

★**Jacksonville, Fla.**—Contract for erecting the criminal court building and the jail, awarded to W. P. Richardson & Co., Jacksonville, at about $183,000.

Vivian, La.—Lowest bid received for erecting high school for Caddo Parish reported to have been submitted by Jones & Harrington, Hot Springs, Ark., at $64,895. Building is to be 2 story brick and terra cotta containing 17 rooms and an auditorium. Edw. F. Neild, Archt., Shreveport.

★**Canton, Miss.**—Contract for erecting U. S. Post Office awarded to Algernon Blair, Montgomery, Ala., at $39,475.

Camden, Tenn.—County Court has authorized erection of a court house costing $40,000.

★**Cookville, Tenn.**—Contract for erecting U. S. Post Office awarded to W. H. Fissell & Co., New York, N. Y., at $81,840.

Knoxville, Tenn.—Mayor S. G. Heiskell, in a message to the City Comrs., recommends remodeling, at a cost of $35,000, the present Boyd School for city hall purposes; also the building of a high school for colored children.

Alliance, O.—Bids desired until Mar. 1 by O. Wenderoth, Superv. Archt., Washington, D. C., for construction, complete (including mechanical equipment, interior lighting fixtures and approaches) of U. S. Post Office at Alliance.

Site at S. Liberty Ave. purchased by Bd. Educ. for new school. Frank L. Packard of Columbus selected to prepare plans.

Bowling Green, O.—All bids received Jan. 9 by Bd. Trus. State Normal College for erecting powerhouse have been rejected. New bids will be received.

New bids on erection of above building will be received Feb. 12 by D. C. Brown, of Napoleon, Secy. Bd. Trus., Bowling Green State Normal School, Bowling Green, work to include fireproof building, stack, tunnel system, water supply and softening plant, electrical work, gas fitting, steam mains, pumps, etc. Howard & Merriam, Archts., 8 E. Broad St., Columbus.

Chillicothe, O.—V. T. Ritter, Huntington, W. Va., is architect for the 14 room fireproof school which Bd. Educ. intends erecting.

Cincinnati, O.—Bd. Educ. has decided upon sites for the Warsaw and Twelfth Sherman Schools.

★**Cleveland, O.**—Bd. Educ. awarded contracts as follows for erecting the Murray Hill School: Masonry and stone work to C. A. Carson Co. at $101,386; carpentry, Master & Mullens Co., $25,432; heating, Chafer Co., $31,875.

Hospital bonds amounting to $75,000 and fire protection bond amounting to $100,000 have been sold.

Dayton, O.—Bids desired until Feb. 11 by Bd. Educ. (C. J. Schmidt, Clk.) for furnishing material and erecting Dayton View School, Cambridge, Yale and Euclid Aves. Schenck & Williams, Archts., Arcade Bldg. Probable cost, $135,000.

Lakewood, O.—Bids desired until Feb. 9 by P. T. Harrold, Clk. Bd. Educ., for erecting McKinley School on W. Clifton Boule. near Detroit Ave. Chas. W. Hopkinson, Archt., Rose Bldg., Cleveland.

Bids desired same time and place as above for erecting a library building at Detroit and Arthur Aves. Edw. L. Tilton, Archt., 32 B'way, New York.

Toledo, O.—Reported bids desired until Jan. 28 by Bd. Educ. for $90,000 school building bonds.

Bids desired until Feb. 15 by Bd. Educ. for furnishing material and erecting Detroit School. Edw. M. Gee, Archt., Bd. Educ.; Geo. L. McKesson, Dir. Schools.

Wadsworth, O.—Citizens voted in favor of issuing $50,000 school improvement bonds.

★**Bloomington, Ind.**—Contract for erecting city hall reported awarded to Geo. L. Weaver, of Indianapolis, at $37,712.

Evansville, Ind.—School bonds amounting to $48,000 have been sold.

Warsaw, Ind.—School Bd. is considering plans for a graded school to cost $60,000 to replace the Center Ward building.

★**Ishpeming, Mich.**—Contract for erecting U. S Post Office awarded to Jas. Devault, Canton, O., at $55,477.

Lincoln, Ill.—Plans prepared by Deal & Ginzel, Lincoln, for 2-story brick and stone, 16-room school have been adopted by the Bd. Educ. Cost $55,000.

Sheboygan, Wis.—The erection of a high school costing $150,000 is reported under consideration. Address Bd. Educ.

Cedar Falls, Ia.—Proudfoot, Bird & Rawson, Hubbell Bldg., Des Moines, preparing plans for a vocational building for the Iowa State Teachers' College.

Rock Rapids, Ia.—Erection of a fireproof court house, costing $110,000, is reported under consideration. Address Co. Comrs.

★**Osakis, Minn.**—Contracts have been awarded as follows on bids opened Jan. 7 for erecting school in Dist. No. 1: General construction, Ole Evenson, Osakis, $42,503; heating and plumbing, Virginia Htg. & Plumbing Co., Virginia, $12,033. Kirby T. Snyder, Archt., Plymouth Bldg., Minneapolis. E. N. Hamilton, Supt. Bd. Educ.

St. Paul, Minn.—Reported bids desired Feb. 4 by Co. Comrs. for erecting the almshouse addition to cost $100,000.

Ft. Leavenworth, Kan.—Following are 4 lowest bids opened Jan. 11 by Capt. H. E. Comstock, Constructing Q. M., U. S. A., for erecting a 2-story brick army service school library: R. B. Yoakum, Leavenworth, $44,000; Kelley & Bashl, Leavenworth, $44,693; Fogel Constr. Co., Kansas City Mo., $45,987; Aiken & Thayer, Kansas City, Mo., $46,591.

Independence, Kan.—G. H. Kreinhagen, City Clk., writes that architect will be engaged Jan. 22 for the proposed city hall; bids for construction will be received about April 1; cost about $38,000.

Collegeview, Neb.—Bids desired until Jan. 30 by Public Library Bd. (W. E. A. Aul, Pres.) for erecting a library.

Letcher, S. D.—Bids desired until Feb. 2 (readvertisement) by Bd. Educ. (R. H. Todd, Clk.) for erecting a school. A. H. Shoultz, Archt., Watertown.

Sioux Falls, S. D.—Bids desired until Feb. 12 by Bd. Educ. (W. B. Fuller, Clk.) for furnishing material and erecting a school. Patton, Holmes & Flinn, Archts., 8 S. Dearborn St., Chicago, Ill.

★**Houston, Tex.**—Contract for erecting Southland School, in Southland Terrace, reported awarded to Jas. Shapley & Sons, Houston. Lane & Dowdy, Archts., Stewart Bldg.

Houston, Tex.—Bids reported desired on $200,000 school bonds. Address City Clerk.

★**Medford, Ore.**—Contract for erecting U. S. Post Office awarded to Sound Constr. & Engr. Co., Seattle, Wash., at $96,123.

Morningside, Cal.—High School bonds amounting to $55,000 have been sold.

Redondo, Cal.—School bonds amounting to $150,000 for erecting a grade school have been sold.

San Francisco, Cal.—Plans being revised for pathological building and garage to be erected at the San Francisco Hospital, and new bids will be asked by the Bd. Wks.

Ft. Huachuca, Ariz.—Following are four lowest bids received Dec. 21 by Constructing Quarter Master at this port for erecting the various buildings here: (a) Asbestos roof, (b) wood shingles: J. M. Sparks, Douglas, (a) $156,206, (b) $153,261; Mayfield & Shaw, Ft. Bliss, Tex., (a) $193,028, (b) $189,920; Winget Constr. Co., Los Angeles, Cal., (a) $193,429, (b) $188,235; Ziegler Bros., Junction City, Kan., (a) $194,385, (b) $191,934.

Vancouver, B. C.—Plans being prepared by A. Arthur Cox, Carter-Cotton Bldg., for the Maternity Hall to be erected at the Vancouver General Hospital at a cost of $75,000.

PRIVATE BUILDINGS.

Items Arranged Geographically

Boston, Mass.—Plans completed by C. Howard Walker, 71 Kilby St., for a 6-story business building to be erected on School St. of fireproof construction and to have a separate power plant. J. P. Reynolds and Alex. Whiteside, Trus. of the estate.

P. G. Rice & Co., Old South Bldg., is to erect a 4-story brick apartment house on Commonwealth Ave., Brighton, to cost $50,000.

Salem, Mass.—Bids desired by Lester S. Couch, Archt., 70 Kilby St., Boston, until Feb. 15 for the erection of a 5-story brick and limestone building, 96 x 138 ft., for the Masonic Temple Assoc.; cost about $150,000.

Springfield, Mass.—Reported bids desired by Bdlg. Com. of Y. M. C. A. (H. A. Mosely, Chmn.) for erecting the 7 story brick, fireproof steel frame Y. M. C. A. building on Chestnut St. according to plans by Shattuck & Hussey, Chicago, Ill.

Buffalo, N. Y.—Reported bids will soon be asked by the Lehigh Valley R.R. (E. B. Ashby, Ch. Engr., 143 Liberty St., New York) on the construction of the passenger terminals at Main and Scott Sts. and the freight terminals at Washington and Scott Sts., plans for which have just been approved by the city. Work will include necessary viaducts and approaches; work is estimated at about $5,000,000.

Kingston, N. Y.—Plans being prepared by Gerard Betz, Kingston, for a 2-story brick and stone theater, 109 x 150 ft. to be erected here by Lew Fisher; cost about $60,000.

Middletown, N. Y.—Plans being prepared by D. H. Canfield, Argus Bldg., for a 3-story, 50 x 200 ft., department store and office building to be erected of brick by J. V. Demerest, 44 Korth St.

New York, N. Y.—Gaetan Ajello, 1 W. 34th St., has been selected to prepare plans for the 13 story apartment house which the Paterno Constr. Co. will erect on West End Ave. and 88th St.

Reported plans are being prepared by McKenzie, Voorhees & Gmelin, 1123 Bway. for a residence to be erected at 713 Park Ave. for Chas. M. Clark. Treas. Bradstreet Co., N. Y. Life Bldg.

Plans filed for the following buildings: 6 story brick non-fireproof tenement at 113th St. and 7th Ave. for Williams Bldg. Corporation, cost $60,000; Gronenberg & Leutchtag, 303 5th Ave., Archts.; 6 story brick non-fireproof tenement at 190th St. and St. Nicholas Ave., cost $125,000; Neville & Bagge, 105 W. 40th St., Archts.; 12 story brick apartment house at 159 E. 79th St., for 161 E. 79th St. Co., cost $250,000; Rouse & Goldstone, 38 W. 32d St., Archts.; 5 story brick tenement at Marmion Ave. and 178th St., for Eifel Constr. Co., cost $50,000; Maximillian Zipkes, 405 Lexington Ave., Archt.

Warren & Wetmore, 16 E. 47th St., are architects for the 11-story store, loft and office building to be erected at 5th Ave. and 37th St. by the Murray Hill Investing Co., at a cost of $800,000.

New York, N. Y.—Plans reported prepared by Chas. A. Platt, 11 E. 24th St., for an office building probably 8 stories high, which it is reported is to be erected on Astor House site, Bway. and Vesey St., by Wm. Vincent Astor.

Niagara Falls, N. Y.—Plans being prepared by Saml. Austin & Son Co., Cleveland, O., for a 5-story reinforced concrete loft building to be erected at Main St. and Bellevue Ave. by A. M. Boffe, 1009 Garden Ave. Cost $74,000.

★**Oyster Bay, L. I., N. Y.**—Contract for erecting a residence, terra cotta brick fireproof construction, has been awarded to F. W. Maher, 320 5th Ave., New York, by Sterling Postley, owner. Hoppin & Koen, Archts., 224 5th Ave., New York.

Later garage and out buildings are to be erected, and the total expenditure will be about $100,000.

Erie, Pa.—Plans have been prepared by Richd. Irvin, Pittsburgh, for an 8-story brick, steel and reinforced concrete mercantile building; bids for construction are being received by Harry J. Schlosser, owner.

Philadelphia, Pa.—Bids will soon be asked by the Pennsylvania Warehousing Co., 113 S. 3d St., for erecting an 8-story reinforced concrete and brick warehouse at Delaware Ave. and Pine St.

Pottsville, Pa.—Bids desired until Jan. 25 for erecting 3-story brick building at 202-4 N. Center St. For further information address Ellis Duell, 204 N. Centre St.

Lynchburg, Va.—Plans have been prepared and contract will soon be let for erecting the Lynchburg Natl. Bank building at 9th and Main Sts., to be 46 x 127 ft. of Concord granite and cost $100,000.

Memphis, Tenn.—Reported S. Geismer & Son, 231 McLemore Ave., Memphis, intend erecting in Nonconnah on the Illinois Central R. R. a hotel for the use of the men employed there at the shops of the Illinois Central R. R. Cost $50,000.

★**Cleveland, O.**—McClintic-Marshall Co., Pittsburgh, reported to have contract for 2,500 tons of structural steel needed in the Union Natl. Bank Bldg. to be erected at 308 Euclid Ave. Crowell-Lundoff-Little Co., Cleveland, are general contractors. Cost complete, $600,000.

It is reported bids will soon be asked for erecting the terminal warehouse which the West Ninth Terminal Warehouse Company intends erecting according to plans by Fulton & Taylor, Permanent Bldg.

Springfield, O.—Reported bids desired Feb. 1 for cottages for boys to be erected at the Ohio Masonic Home according to plans by Richards, McCarthy & Bulford, of Columbus.

Toledo, O.—Plans being prepared by M. M. Stophlet, Nasby Bldg., for construction of a 7-story reinforced concrete storage warehouse for D. Schiewe Storage Co., of Detroit, Mich.; cost $60,000. Details will not be settled for several months.

Plans being prepared for new edifice to be erected at Cherry and Moore Sts. for the First German Reformed Church; cost $60,000.

Westerville, O.—Plans being prepared by Stribling & Lum, 85 N. High St., Columbus, for a brick and stone church which the United Brethren Congregation intends erecting at Main and Grove Sts. at a cost of $60,000.

New Albany, Ind.—The Masons are said to be contemplating the erection of a $75,000 temple.

Detroit, Mich.—Plans by C. Howard Crane, 2323 Dime Bank Bldg., completed for a theatre to be erected at Grand River and 14th Aves. for John H. Kunsky, 2206 Dime Bank Bldg., cost $125,000.

The Lodge of Elks decided to erect a club house costing $250,000. Tentative plans have been prepared by Van Leyen & Schilling, Union Trust Bldg.

★Contract reported awarded to Geo. A. Fuller Co., 305 15th St., for erecting addition to Penobscot Bldg. on Congress St. Donaldson & Maier, Archts., Penobscot Bldg.

Tivoli Brewing Co. will erect at 25-27 Cadillac Sq. a 7 or 8-story building.

The Edison Illuminating Co. of Detroit (Alex. Down, Pres.) will erect a substation at Congress St. and Cass Ave. costing, including equipment, $125,000.

Ft. Atkinson, Wis.—Citizens have appropriated $40,000 for erecting a new commercial club house.

Racine, Wis.—Bids reported desired until Feb. 2 by Y. M. C. A. (L. C. Bradshaw, Secy.) at office of Guilbert & Funston, Engrs., Racine, for erecting 4-story and basement, 80 x 160 ft. Y. M. C. A. building. Probable cost $100,000. Cyrus O. McLane, Archt., Robinson Bldg., Rock Island, Ill.

Superior, Wis.—Bell Telephone Co. (W. F. Hallfrisch, Mgr.) reported to be taking steps to erect a building in this city costing $100,000.

Des Moines, Ia.—Plans are being prepared by Liebbe, Nourse & Rasmussen, Utica Bldg., for a hotel to be erected on site of the Holland apartment house at W. 12th St. and Grand Ave. The 3-story Holland apartment house is to be remodeled and 3 stories added; building is to be fireproof and cost $100,000.

St. Paul, Minn.—Plans of Thos. G. Holyoke, Endicott Bldg., accepted by the Bd. Mgrs. of the Church Home of Minnesota, 587 Fuller St., for the church home to be erected on Montrose and Dayton Aves. at a cost of $40,000. Bids for construction will be asked at once.

Plans prepared by Buechner & Orth, 500 Shubert Bldg., for a 6-story addition to be erected to the St. Paul Arcade, at 7th and Robert Sts., by the Schneider Realty Co.

Dallas, Tex.—Plans prepared by Krocker & Deckhar, San Francisco, Cal., for a church and 14-story office building which the First Methodist Church contemplates erecting on Commerce, Prather and Jackson Sts. at a cost of about $550,000.

Dallas, Tex.—See "Electric Railways."

★**Galveston, Tex.**—Contract for 2-story brick store and office building, to be erected on Avenue C and 22d St., awarded to E. O. Fisher Bldg. Co., of Galveston; cost $40,000.

★**Seattle, Wash.** — Contract reported awarded to John McGrath for erecting a 2 story concrete and brick warehouse on Terry Ave. for the Ernst Hardware & Plumbing Co. Jas. H. Schack, Archt., Lippy Bldg.

Spokane, Wash.—W. P. Fuller & Co., headquarters at San Francisco, Cal., reported to be preparing plans for a warehouse to be erected for their company on Desmet Ave., in the O. W. R. & N. warehouse district and to cost $40,000.

★Items marked thus give the names of parties awarded contracts.

Tacoma, Wash.—Plans for the lodge building for the Elks have been revised and new bids for the construction will be received Feb. 1. C. Frere Champney, Henry Bldg., Seattle, Archt.

Long Beach, Cal.—W. S. Strickler and J. B. Anderson propose altering the Hotel Arlington at a cost of $100,000.

NEW INDUSTRIAL PLANTS.

See also "Private Buildings."

Items Arranged Geographically

Sangerville, Me.—The Sangerville Woolen Mills intends constructing a concrete dam across Piscataquis River and will install 2 new sets of woolen cards, 5 new woolen mules and 12 new broad looms.

★**Rutland, Vt.**—Contract for erecting moulding room 288 x 117 ft., steel and brick, for the Howe Scale Co., awarded to Berlin Constr. Co., of Berlin, Conn.

Clinton, Mass.—The Clinton Wire Cloth Co. will erect a factory addition in early spring.

East Providence, R. I.—The Nonnabo Chemical Co. is planning the erection of a plant here for the manufacture of cellulose products and to cost $100,000.

Providence, R. I.—The Dolby Ice Cream Co. will erect a 2-story steel and concrete plant, also a power, heating and refrigerating plant.

Barnard, N. Y.—Geo. E. Worth, of Barnard, Supt. Pennsylvania Feldspar Co., writes he will receive bids Feb. 2 for the erection of a 3-story fireproof steel and concrete mill, 70 x 70 ft.

Brooklyn, N. Y.—L. Schepp, Hudson and Duane Sts., New York, contemplates erecting a fireproof factory at 191 Washington St.

★Contract awarded to Turner Constr. Co., 11 Bway., New York, N. Y., for erecting 2 reinforced concrete stories to building of the Doehler Die Casting Co., 187 9th St., Brooklyn.

Buffalo, N. Y.—Plans being completed by Lockwood & Greene, Boston, Mass., for a 3-story factory to be erected on Main St. for the Buffalo Meter Co.

Plans being prepared by Dunning & Connelly, 162 W. Washington St., Chicago, Ill., for a 2-story, 90 x 61 ft., factory to be erected for the Buffalo Wagon Wks., 113 Carroll St.

The International Specialty Co., Bridgeburgh, Ont., intends erecting a 3-story factory on Niagara St.

Lestershire, N. Y.—The Endicott Johnson Co., Endicott, N. Y., will erect a 4-story, 60 x 400 ft., fireproof, storage warehouse to cost with equipment $150,000.

Elizabeth, N. J.—Plans filed for a 1-story brick factory to be erected by the Waclark Wire Co. at a cost of $31,100.

★**Allentown, Pa.**—Contract for erecting addition to plant of the Kaltenbach & Stephens Co. has been awarded to F. L. Dillon Constr. Co.; cost $40,000. An additional 200 ribbon looms are to be installed.

Bristol, Pa.—Plans have been prepared by Hencock & Hokanson, Bailey Bldg., Philadelphia, for a power house and coal storage building, main building 2 story brick, steel and reinforced concrete, 56 x 175 ft.; engine room will be 1 story, 52 x 105 ft., including a stack 12 ft. in diam. It will be equipped with mechanical stokers, engines, boilers, generators, pumps, etc.

★**Philadelphia, Pa.**—Contract for erecthouse for the Norris Market Ice Mfg. & Cold Storage Co. awarded by Peuckert & Wunder, Archts., 310 Chestnut St., to Philip Haibach Contr. Co., 2530 Thompson St. Building to be brick, steel and concrete, fireproof and will cost with equipment $35,000.

★**Anderson, S. C.**—Contract for erecting terminal grain elevator awarded to H. H. Richards by the Chamber of Commerce.

Columbus, Ga.—The Bibb Mfg. Co. intends making improvements to the local plant of the Bibb mills on North Highlands, to include installation of electrical machinery. Cost of improvements $75,000.

Macon, Ga.—Henry Neuhoff Co., of Nashville, Tenn., is reported interested in the erection of an abattoir in this city. Cost $75,000.

Jacksonville, Fla.—Chas. Henry Knight, Pres Henry Knight & Son, and the Louisville Products Co., packers, is reported interested in the erection of an abattoir and packing house in this city on the unit plan.

★**North Industry, O.**—Contract for erecting a 1,500 bbl. cement plant for the O. C. Barber Mining & Fertilizer Co., awarded to Atlas Eng. Co., Cleveland.

★**Sandusky, O.**—Contract for erecting addition to the plant of the Farrell Cheek Steel Fdry. Co. awarded to G. W. Doerzbach & Bro. About 50 tons of structural steel will be used in the building. Osborne Eng. Co., Cleveland, Engrs.

Wausau, Wis.—H. E. Scheller, Secy.-Treas. Farmers Co-operative Packing Co., writes that bids will be received after Feb. 1 for the construction of a packing plant, to be of concrete, brick and steel construction, with power plant and all packing house machinery; cost about $40,000.

St. Paul, Minn.—Northern Insulating Co. has secured a permit to erect a fireproof manufacturing building costing $25,000 on Wabash Ave. and Hamden St.

Spokane, Wash.—The Inland Empire Paper Co. reported to be taking steps to erect a sulphide plant at a cost of $200,000. The building of a dam and power plant costing $300,000 is also contemplated.

Portland, Ore.—Coin Machine Co., Corbett Bldg. (T. I. Potter, Pres.), will erect a 2-story reinforced concrete factory in the Holgate addition to cost $60,000.

MISCELLANEOUS.

See also "Hydraulic Construction and River Improvements."

Items Arranged Geographically

Swimming Pool—Baltimore, Md.—Local press reports state that Fred. Olmsted, of Boston, Mass., will prepare plans for converting Mt. Royal reservoir in Druid Hill Park into a swimming pool.

Riprap—New York, N. Y.—Bids desired until Jan. 26 by R. A. C. Smith, Comr. Docks, for Contr. 1441—Furnishing, delivering and putting in place about 500,000 cu. yds, riprap stone. Security $14,000.

Stone—Face Cutting of Stones, Kensico Dam, Contract 162—New York, N. Y.—The only bid received and opened Jan. 19 by the Bd. Water Supply for Contract 162, face cutting of stones for Kensico dam, about 8000 sq. ft., was submitted by H. S. Kerbaugh, Inc., 6 Church St., at a lump sum bid of $24,300.

Trap Rock—East Orange, N. J.—Bids desired until Jan. 25 by Lincoln E. Rowley, City Clk., for furnishing 3,000 tons, 1½ in., and 3,000 tons ¾ in. trap rock, and 2,000 tons broken trap rock screenings.

District Appropriation—Washington., D. C.—The U. S. Senate on Jan. 18 passed the District of Columbia bill, calling for an appropriation of about $12,000,000.

Cranes—Cleveland, O.—Bids desired until Jan. 28 by Commissioner of Purchase & Supplies, 511 City Hall, for 2 traveling cranes for the Dept. Public Utilities, Div. of Water.

Steam Boiler—Middletown, O.—Bids desired until Feb. 11 by City commissioners, (John Kunz, Clk.) for removing 2 return tubular boilers and installing one 150 h. p. water tube boiler with smoke connections, steam piping and other miscellaneous work, advertised in Engineering Record. Pollard & Ellms, Consulting Engrs., 2806 Union Central Bldg., Cincinnati.

Fence, Etc.—Devils Lake, N. D.—Bids reported desired until Feb. 2 by Carl Vrooman, Acting Secy. Dept. Agriculture, Washington, D. C., for an enclosure on Sully's Hill National Park, consisting of 6 miles of fencing, inclosure gates and small inclosures inside.

Park Improvements—Houston, Tex.—See "Sewerage and Sewage Disposal."

Cement—Denver, Colo.—Following are the bids opened Dec. 18 at the office of U. S. Reclamation Service, Denver, for 145,000 bbls. Portland cement f.o.b. cars, works of bidder (price given per bbl.): Ash Grove Lime & Portland Cement Co., Chanute, Kan., 70 cts.; Atlas Portland Cement Co., Hannibal, Mo., $1.01; Colorado Portland Cement Co., Portland, Colo., $1; Dewey Portland Cement Co., Dewey, Okla., 68 cts.; Fredonia Portland Cement Co., Fredonia, Kan., 70 cts.; Henry Cowell Lime & Portland Cement Co., Bay Point, Cal., $1.40; International Portland Cement Co., Irvin, Wash., $1.18; Iola Portland Cement Co., Iola, Kan., $1; Lehigh Portland Cement Co., Mason City, Ia., or Metaline Falls, Wash., $1; Ogden Portland Cement Co., Bakers, Utah, $1.20; Pacific Portland Cement Co., Tolenas, Cal., $1.40; Portland Cement Co. of Utah, Salt Lake City, Utah, $1.35; Southwestern Portland Cement Co., El Paso, Tex., $1.40; Standard Portland Cement Cor., Napa Junction, Cal., $1.40; Three Forks Portland Cement Co., Trident, Mont., $1.20; Union Portland Cement Co., Devils Slide, Utah, $1.10; United States Portland Cement Co., Concrete, Colo., $1; Universal Portland Cement Co., South Chicago, Ill., or Buffington, Ind., $1.06 in sacks or $1.04 in bulk.

★Contract for 45,000 bbls. of the above cement was awarded to Southwestern Portland Cement Co., El Paso. Other awards are still pending.

Cement—Seattle, Wash.—Bids desired until Feb. 10 by Port of Seattle Comn. (O. E. Remsberg, Secy.) for furnishing 20,000 bbl. Portland cement.

Proposals

For Proposals Advertised see Pages 42 and 43.

WATERWORKS.

Bids Close.		See Eng. Record.
Jan. 27.	Pumps, Etc., Hammond, Ind.	Jan. 23
Jan. 27.	Hydrants, Louisville, Ky.	Jan. 23
Jan. 28.	Pipe, Etc., Brooklyn, N. Y.	Jan. 23
Jan. 28.	Pipe, Hydrants, Etc., Cincinnati, O.	Jan. 23
Jan. 29.	C. I. Pipe, Hawthorne, N. J.	Jan. 16
	Adv. Jan. 16.	
Jan. 29.	Well at Reformatory, Bedford Hills, N. Y.	Jan. 16
	Adv. Jan. 16, 23.	
Jan. 29.	Extensions, Columbia, S. C.	Jan. 9
	Adv. Jan. 9 to 23.	
Feb. 1.	Reservoir, Joliet, Ill.	Jan. 16
Feb. 1.	System, Redford, Mich.	Jan. 16
	Adv. Jan. 16, 23.	
Feb. 3.	Extension, Anna, Ill.	Jan. 16
Feb. 3.	Bonds, Rector, Ark.	Jan. 16
	Adv. Jan. 16.	
Feb. 3.	Wells, Rector, Ark.	Jan. 16
	Adv. Jan. 16.	
Feb. 4.	Pipe, Pump, Etc., Lewistown, Ill.	Jan. 23
Feb. 6.	Water Supply for Bldgs., Springfield, O.	Jan. 16
Feb. 8.	Water Wks., East Peoria, Ill.	Jan. 23
	Adv. Jan. 23	
Feb. 12.	Pipe, Asheville, N. C.	Jan. 23
Feb. 12.	Supply for Buildings, Napoleon, O.	Jan. 23
Feb. 20.	Laying Pipe, Middletown, N. Y.	Jan. 23
Jan. 28.	Pipe and Fittings, etc., Panama	Jan. 23
Feb. 9.	Sedimentation Basin, Philadelphia, Pa.	Jan. 16
	Adv. Jan. 16.	
Mar. 2.	Reservoir, Fitchburg, Mass.	Jan. 16
	Adv. Jan. 16, 23.	

SEWERAGE AND SEWAGE DISPOSAL.

Bids Close.		See Eng. Record.
Jan. 26.	Hartford, Conn.	Jan. 23
Jan. 27.	Rockford, Ill.	Jan. 16
	Adv. Jan. 16.	
Jan. 27.	South Pasadena, Cal.	Jan. 23
Jan. 27.	Philadelphia, Pa.	Jan. 23
Jan. 28.	Long Island City, N. Y.	Jan. 23
Jan. 29.	Columbia, S. C.	Jan. 9
	Adv. Jan. 9 to 23.	
Jan. 29.	New York, N. Y.	Jan. 23
Feb. 1.	Valley Falls, Kan.	Jan. 16
Feb. 1.	San Antonio, Tex.	Jan. 23
Feb. 2.	Sec. 18 (Southerly Portion), Newark, N. J.	Jan. 16
	Adv. Jan. 16, 23.	
Feb. 2.	New York, N. Y.	Jan. 23
Feb. 3.	Bonds, Rector, Ark.	Jan. 16
	Adv. Jan. 16.	
Feb. 4.	Philadelphia, Pa.	Jan. 23
	Adv. Jan. 23.	

BRIDGES.

Bids Close.		See Eng. Record.
Jan. 26.	Greenville, Ill.	Jan. 16
Jan. 28.	Ottawa, Ont.	Dec. 26
Jan. 28.	Ellerson, Va.	Jan. 23
Jan. 29.	Nevada, Ia.	Jan. 23
Jan. 30.	Sorento, Ill.	Jan. 23
Feb. 1.	Salina, Kan.	Jan. 16
Feb. 1.	Zanesville, O.	Jan. 16
Feb. 1.	Pima, Ariz.	Jan. 23
Feb. 2.	Salina, Kan.	Jan. 23
	Adv. Jan. 23.	
Feb. 3.	Chehalis, Wash.	Jan. 9
Feb. 5.	Columbus, O.	Jan. 16
Feb. 10.	Ivanhoe, Minn.	Jan. 23
Feb. 12.	Calgary, Alta.	Jan. 16
Feb. 17.	Washington, D. C.	Jan. 23
	Adv. Jan. 23.	
Feb. 23.	Portland, Ore.	Jan. 16
	Adv. Jan. 16, 23.	

PAVING AND ROADS.

Bids Close.		See Eng. Record.
Jan. 26.	Washington, D. C.	Jan. 23
Jan. 27.	Greenville, Tex.	Dec. 26
Jan. 27.	Flint, Mich.	Jan. 9
Jan. 27.	Troy, O.	Jan. 16
Jan. 27.	Manhattan Beach, Cal.	Jan. 16
Jan. 27.	Buffalo, N. Y.	Jan. 23
Jan. 27.	Louisville, Ky.	Jan. 23
Jan. 28.	New Albany, Ind.	Jan. 9
Jan. 29.	Mt. Gilead, O.	Jan. 9
Jan. 30.	Louisiana	Jan. 9
Jan. 30.	Lima, O.	Jan. 16
Jan. 30.	Cleveland, O.	Jan. 23
Jan. 31.	Boston, Mass.	Jan. 23
Feb. 1.	Chehalis, Wash.	Jan 9
Feb. 1.	Indiana	Jan. 16
Feb. 1.	California	Jan. 23
Feb. 1.	Oakwood, O.	Jan. 23
Feb. 1.	Indiana	Jan. 23
Feb. 1.	Eagle Rock, Cal.	Jan. 23
Feb. 2.	Indiana	Jan. 16
Feb. 2.	East Providence, R. I.	Jan. 23
Feb. 2.	Indiana	Jan. 23
Feb. 2.	Prosser, Wash.	Jan. 23
Feb. 2.	Kalama, Wash.	Jan. 23
Feb. 3.	Indiana	Jan. 23
Feb. 3.	Baltimore, Md.	Jan. 23
	Adv. Jan. 23.	
Feb. 4.	Bay City, Ore.	Dec. 26
Feb. 6.	Chehalis, Wash.	Jan. 16
Feb. 8.	Greenville, Pa.	Jan. 23
	Adv. Jan. 23.	
Feb. 10.	Seattle, Wash.	Jan. 16
Feb. 10.	Ivanhoe, Minn.	Jan. 23
Feb. 15.	Marshalltown, Ia.	Jan. 16
Feb. 15.	Cleveland Heights, O.	Jan. 23

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Bids Close.		See Eng. Record.
Jan. 26.	Lock and Dam, Maysville, Ky.	Dec. 26
	Adv. Dec. 26 to Jan. 16.	
Jan. 29.	Ditch, Stillwater, Minn.	Dec. 26
Jan. 30.	Lock Gates, Wheeling, W. Va.	Jan. 2
	Adv. Jan. 2 to 23.	
Feb. 1.	Repairs to Bulkhead, Philadelphia, Pa.	Jan 23
Feb. 2.	Contr. 28—State Canal Wks., Albany, N. Y.	Jan 9
	Adv. Jan. 9 to 23.	
Feb. 3.	Irrigation Wk., Payson, Utah	Jan. 9
	Adv. Jan. 9.	
Feb. 3.	Ditches, Jackson, Minn.	Jan. 23
Feb. 4.	Drain, Gonzales, La.	Jan.
Feb. 5.	Dam, etc., Harrisonburg, La.	Dec. 5
	Adv. Dec. 5 to 26.	
Feb. 5.	Irrigation, Elephant Butte, N. M.	Jan. 23
Feb. 8.	Drainage, Elsberry, Mo.	Jan. 16
Feb. 8.	Ditch, Bemidji, Minn.	Jan. 23
Feb. 8.	Levee, Bakersfield, Cal.	Jan. 23
Feb. 9.	Steel Hull for Derrick Boat, Cincinnati, O.	Jan. 16
Feb. 10.	Irrigation, Oakdale, Cal.	Jan. 9
Feb. 10.	Stone for Jetty, Lone Tree, Wash.	Jan. 23
Feb. 11.	Dredging, New York, N. Y.	Jan. 16
	Adv. Jan. 16 to 23.	
Feb. 11.	Wharf, Washington, D. C.	Jan. 23
	Adv. Jan. 23.	
Feb. 15.	Electric Hoist, Philadelphia, Pa.	Jan. 9
	Adv. Jan. 9 to 16.	
Feb. 19.	Pumping Station for Drainage Dist., Quincy, Ill.	Jan. 16
	Adv. Jan. 16 to 23.	
Feb. 20.	Wharf, Brooklyn, N. Y.	Jan. 23
Feb. 24.	Valves, etc., for Dry Dock No. 1, Panama	Jan. 9
Feb. 24.	Pump. Plant for Dry Dock, Panama	Jan. 9
Mar. 1.	Revetment, New London, Conn.	Jan. 23
	Adv. Jan. 23.	

PUBLIC BUILDINGS AND SCHOOLS.

Bids Close.		See Eng. Record.
Jan. 26.	McCook, Neb.	Dec. 26
Jan. 26.	Socorro, N. M.	Jan. 9
Jan. 26.	Willoughby, O.	Jan. 16
Jan. 27.	Washington, D. C.	Jan. 9
	Adv. Jan. 9, 16.	
Jan. 27.	Hoboken, N. J.	Jan. 23
Jan. 28.	Seattle, Wash.	Jan. 16
Jan. 29.	Chanute, Kan.	Dec. 26
Jan. 29.	New Haven, Conn.	Jan. 16
Jan. 29.	Long Island City, N. Y.	Jan. 23
Jan. 29.	Newark, N. J.	Jan. 23
Jan. 30.	Mohawk, N. Y.	Dec. 26
Jan. 30.	Thiells, N. Y.	Jan. 16
	Adv. Jan. 16, 23.	
Jan. 30.	Collegeview, Neb.	Jan. 23
Jan. 31.	Bartow, Fla.	Jan 2
Feb. 1.	Fresno, Cal.	Jan. 9
Feb. 1.	Bridgeport, Conn.	Jan. 16
Feb. 1.	Cooperstown, N. D.	Jan. 16
Feb. 1.	Braddock, Pa.	Jan. 23
Feb. 2.	Bath, N. Y.	Jan. 9
	Adv. Jan. 9 to 23.	
Feb. 2.	Letcher, S. D.	Jan. 23
Feb. 2.	South Brownsville, Pa.	Jan. 23
Feb. 3.	Allentown, Pa.	Jan. 23
Feb. 4.	San Antonio, Tex.	Jan. 9
Feb. 4.	St. Paul, Minn.	Jan. 23
Feb. 5.	Huntington, W. Va.	Jan. 16
Feb. 6.	Orono, Ont.	Jan. 16
Feb. 8.	Tiffin, O.	Dec. 26
Feb. 8.	Lima, O.	Jan. 16
Feb. 8.	Hopedale, Mass.	Jan. 23
Feb. 8.	Lima, O.	Jan. 23
Feb. 9.	Lakewood, O.	Jan. 23
Feb. 11.	Dayton, O.	Jan. 23
Feb. 11.	Ft. Myer, Va.	Jan. 23
	Adv. Jan. 23.	
Feb. 12.	Sioux Falls, S. D.	Jan. 23
Feb. 12.	Bowling Green, O.	Jan. 23
Feb. 15.	Toledo, O.	Jan. 23
Feb. 16.	Cincinnati, O.	Dec. 12
Feb. 18.	Lincoln, Neb.	Jan. 9
Feb. 20.	Covington, Tenn.	Jan. 16
Feb. 27.	Miles City, Mont.	Jan. 9
Mar. 1.	Champion, O.	Jan. 9
Mar. 1.	Alliance, O.	Jan. 23
Mar. 6.	Lawton, Okla.	Jan. 9

PRIVATE BUILDINGS.

Bids Close.		See Eng. Record.
Jan. 25.	Pottsville, Pa.	Jan. 23
Feb. 1.	Wausau, Wis.	Jan. 23
Feb. 1.	Tacoma, Wash.	Jan. 23
Feb. 1.	Springfield, O.	Jan. 23
Feb. 2.	Racine, Wis.	Jan. 23
Feb. 15.	New Castle, Pa.	Jan 9
Feb. 15.	Salem, Mass.	Jan 23
Mar. 25.	Wilmington, Del.	Jan. 9

NEW INDUSTRIAL PLANTS.

Bids Close.		See Eng. Record.
Feb. 1.	Minneapolis, Minn.	Jan. 16
Feb. 1.	Wausau, Wis.	Jan. 16
Feb. 2.	Barnard, N. Y.	Jan. 23

MISCELLANEOUS.

Bids Close.		See Eng. Record.
Jan. 26.	Riprap Stone, New York, N. Y.	Jan. 23
Jan. 28.	Cranes, Cleveland, O.	Jan. 23
Jan. 29.	Steel Trusses, etc., Panama.	Jan. 16
Jan. 29.	Garbage Disposal, Long Island City, N. Y.	Jan. 23
Feb. 2.	Fences, Etc., Devils Lake, N. D.	Jan. 23
Feb. 9.	Garbage Disposal, Shelton, Conn.	Jan. 23
Feb. 10.	Steel Dump Scows, Panama.	Jan. 9
Feb. 10.	Cement, Seattle, Wash.	Jan. 23
Feb. 11.	Steam Boiler, Middletown, O.	Jan. 23
	Adv. Jan. 23.	
Feb. 13.	Revolving Cranes, Norfolk, Va.	Jan. 9
Feb. 16.	Incinerator Plant, Toronto, Ont.	Jan. 9
	Adv. Jan. 9.	
Feb. 17.	Steel Rails, Etc., Melbourne, Australia	Jan. 9
Feb. 27.	Steel Towers, Washington, D. C.	Jan. 9
Mar. 6.	Street Cleaning, Joliet, Ill.	Jan. 23

★*Items marked thus give the names of parties awarded contracts.*

NEW CONSTRUCTION ACTIVITIES

An increase of from 5 to 17 per cent is shown on the car-loading sheets of the Western Trunk Line for the first three weeks of January over the same period in 1914. Analysis of these sheets shows that the increase is principally in industrial tonnage, which is the class of freight that fell off so sharply during the recent depression. Other classes of freight are holding their own, and traffic conditions are rapidly approaching normal. This means that normal conditions may be expected during the year in railway construction and in the purchase of railway supplies. Conditions in the cotton States are being slowly relieved. Although cotton exports are still only a little more than half those of the year before for the period since Aug. 1, 1914, exports last week exceeded exports of the same week in 1914 by over 20 per cent. While bank clearings are not so large as in the corresponding period of last year, they are steadily increasing, and practically the whole volume represents actual trading, as little speculating is going on. Transactions in the stock market indicate that standard securities are moving nearer their proper value, and there seems to be a greater disposition to buy than to sell.

Orders and inquiries for export steel continue to come in both from Europe and from South America. Rail orders since the first of the year had reached 225,000 tons last week

Buildings

Although no large building operations are reported this week, there is a considerable number of moderate size buildings mentioned. Plans have been filed in New York for a $500,000 store building on Fifth Avenue, while it is reported that a contract has been awarded for a twelve-story fireproof steel frame mercantile building on Broadway between Thirty-fifth and Thirty-sixth Streets. Plans have also been prepared for a seven-story reinforced concrete store and loft building in Brooklyn. Bids are desired in St. Louis for erecting a ten-story reinforced-concrete building for the Missouri Athletic Association to cost $500,000. A contract was also awarded at Decatur, Ill., for erecting a $400,000 hotel. Two theaters to cost $400,000 each are contemplated on the Pacific Coast, one at Tacoma and the other at San Francisco. Plans have been prepared for a $300,000 fireproof building at Seattle. The committee on public buildings of the Detroit City Council has approved the plans for a $600,000 municipal court building. A contract has been awarded for a 750,000-bu. elevator at Fort Williams, Ont. Bids on considerable building work have been opened at New Britain, Conn., Binghamton, N. Y., and Minneapolis.

Bridges and Roads

Little new bridge work has been reported this week. A plate girder bridge at Baltimore has been awarded which will cost $108,868. On the Pacific Coast bids are asked at Portland for three small concrete bridges, and plans have been approved at Chehalis, Wash., for two steel bridges. Ordinances have been passed at Columbus, Ohio, for $260,000 worth of bridge and paving work. Issues of road bonds of $200,000 at Greenup, Ky., and for $100,000 at Sanford, N. C., have been voted. At Zanesville, Ohio, $90,000 worth of county road bonds have been sold. Bids for $186,000 worth of paving work are under consideration at Seattle. Bids on road work are desired at Emmetsburg, Iowa, West Liberty, Iowa, and at McKinney, Texas, while the President of the Borough of Manhattan, New York City, desires bids on a large quantity of paving material. A number of Maryland State road contracts have been awarded.

Below will be found a statement from the Office of the Director of Public Roads, U. S. Department of Agriculture, giving an approximate list of funds which will be available for State highway work during 1915. It appears that the bulk of this money will be spent in the East; although California has the second largest individual fund of $10,000,000, and the Middle Western States are well represented.

Waterworks and Sewers

Bids have been opened at Columbus, Ohio, for 180 tons of cast iron pipe. Bids are asked on a reinforced-concrete reservoir at Tampa, Fla. A contract has been let for additions to the water system at Salisbury, Mass., at about $150,000. It is reported that the Fairmont dam of the Philadelphia waterworks will have to be immediately repaired, and the replacement of the dam is recommended. Several good size sewer items are noted. Bids are desired in Brooklyn on a large quantity of sewer work. Bids are also desired at Milwaukee for over 10,000 ft. of 10-in. to 4-ft. diameter sewers. The mayor of Cleveland has approved an ordinance appropriating $100,000 for sewer work, and the city council of Columbus, Ohio, has passed ordinances carrying appropriations of $383,000 for sewer work. Bids are desired in Philadelphia for the reconstruction of down-town sewers preparatory to rapid transit subway construction, which will involve $500,000 worth of work. At Warren, R. I., bids are asked on 15,000 ft. of an 8 to 18-in. sewer, and bids are asked in the District of Columbia for constructing 12,800 ft. of 10 to 24-in. sewer.

Miscellaneous

It is reported from Orange, Va., that the Southern Railway has awarded contracts totaling $1,500,000 for double track work in Virginia and North Carolina. It is reported from San Francisco that $119,000 will be spent in extending the municipal street railway system. Proposals for dredging the harbor of Toledo, Ohio, are desired by the War Department. Bids have been opened for harbor dredging at New York and at Baltimore. At Seattle the U. S. Engineer's Office asks for bids on removing and rebuilding the cofferdam at the Puget Sound, Lake Washington, lock site. At Cape Girardeau, Mo., drainage work calling for 6,000,000 cu. yd. of excavation will be let. At International Falls, Minn., bids are desired for drainage ditches which will cost about $660,000.

WATERWORKS.

Items Arranged Geographically

Lenox, Mass.—The Lenox Water Co. (Wm. D. Curtis, Pres.) is reported to be considering construction of a reservoir.

★**Salisbury, Mass.**—Chas N. Taylor, of Wellesley, Mass., is preparing plans for a water works and a sewer system. This work consists of about 10 miles of 6, 8, 10 and 12 in. c. i. pipe, steel standpipe, 85 ft. high, concrete pumping station, pumping engine, concrete dam, 58 hydrants, and house connections good for 600 places. The construction will also be done by Mr. Taylor who will begin work early in the spring; estimated cost, $150,000.

Hawthorne, N. J.—Bids desired until Feb. 9 by Borough Commissioners for furnishing material and constructing a water supply system, advertised in Engineering Record. H. J. Harden, Engr., Paterson; John S. Shea, Boro. Clk.

Philadelphia, Pa.—Chief Davis of the Water Bureau in a communication to the Director of Public Works, recommends an appropriation of $50,000 for immediate repairs to the Fairmount Dam; he also recommends the construction of a masonry dam at an estimated cost of $350,000 to replace the present one.

Summit Hill, Pa.—The erection of a standpipe is contemplated by Summit Hill Water Co. (E. E. Scott, Secy.).

Windsor, Pa.—Borough Council considering construction of a reservoir.

Braddock Heights, Md.—The Braddock Heights Water Co. is reported to have completed tentative plans for construction of storage reservoir on the mountain to conserve the water supply.

Frederick, Md.—Wm. H. Boardman, of Philadelphia, Pa., in his report on increasing water supply, has recommended construction of 20,000,000-gal. reservoir.

Wilmington, Del.—Bids reported desired by State Highway Comrs. until Feb. 2 for furnishing and laying a 20-in. water main from present submarine main at or near 3d St. bridge to present main at Commerce and Herald Sts. Jas. Wilson, Co. Engr.

Tampa, Fla.—Bids desired until Feb. 15 by Chester R. McFarland, Genl. Mgr. Tampa Water Wks. Co., for constructing reinforced concrete reservoir about 206 ft. long by about 125 ft. wide by about 20 ft. deep.

Belzoni, Miss.—City is in market for a pump of from 432,000 to 720,000 gal. capacity. J. J. Sisloff, Supt.

Akron, O.—City Council considering issue of $600,000 bonds for completion of water works and laying new water mains. Bids reported desired until Feb. 9 by Director Pub. Service for a Venturi meter and appurtenances.

Brewster, O.—L. S. Lash, Village Clk., writes that bonds in the sum of $21,000 have been sold for waterworks from plans of W. J. Sherman Co., of Toledo. Bids will soon be received for construction.

Cambridge, O.—City Council is reported to have approved plans as prepared by Consulting Engineer Sherman, of Toledo, for construction of water works.

Columbus, O.—Following are bids opened Jan. 21 by Bd. Pub. Service (P. B. Kemper, Secy.) for 180 tons c. i. pipe: American Cast Iron Pipe Co., Birmingham, Ala., $45.850; U. S. Cast Iron Pipe Co., Chicago, Ill., $45,940.

Bids are desired until Feb. 5 by Director Pub. Service (Paul B. Kemper, Secy.) for furnishing and delivering 395 4 to 20-in. valves; also 25 tons c.-i. valve boxes.

Cleveland, O.—The Mayor has approved recommendations of Chief Geo. A. Wallace for extension of high pressure mains and authorized Comr. of Water to report to Council probable cost of extending high pressure mains from E. 9th St. to E. 55th St.

South Newburg, O.—Bids desired until Feb. 6 by H. H. Bohning, Village Clk., for furnishing material and constructing water mains in Granger and Turner Rds. Ralph Hecker, Village Engr., Leader-News Bldg., Cleveland.

Toledo, O.—It is proposed to construct water main across Maumee River, 2700 ft. of 24-in. c. i. pipe. Contract not yet let. G. A. Gessner, Supt. Waterworks.

Wellington, O.—The W. J. Sherman Co., The Nasby, Toledo, has been engaged to prepare plans for extensive water works improvements, including filtration.

Wooster, O.—Bids will probably be received by Max Bloomberg, Dir. Pub. Service, about Mar. 15 for construction of a 2,000,000-gal. filtration plant, two 2,000,000-gal. high service pumps, two 2,000,000-gal. low service pumps, 1¾ miles of 16-in. c.-i. pipe, one 1,000,000-gal. steel tank, being built by Pittsburgh-Des Moines Steel Co Engineer, R. H. Hunter, of Wooster.

★**Mishawaka, Ind.**—Contract reported awarded to Fred. M. Prescott Steam Pump Co., Milwaukee, Wis., for new pumping engine for east end water works, at $12,035.

Paoli, Ind.—Village considering construction of a filtration plant. A. J. Rhodes, Village Clk.

Detroit, Mich.—Mayor Oscar B. Marx, in his inaugural message Jan. 12, stated that he made no recommendation for a filtration plant, although one might be advisable. He left the method of purification of water to the engineers, but urged that action be taken to guarantee an adequate and healthful supply.

Ipava, Ill.—Bids reported desired until Feb. 5 by Village Clerk, for water works improvements to include furnishing and installing 6220 ft. c. i. pipe, 75,000 gal. deep well type pump gear to 7½ hp electric motor, 200 gal. turbine pump geared to motor. Fuller-Coult Co., Engrs., Chemical Bldg., St. Louis, Mo.

★**Carroll, Ia.**—Contract for 20,000 ft. of water mains reported awarded to Alma Eng. & Supply Co., of Omaha, Neb., at $13,427.

Kinney, Minn.—Russell Goudge, Village Clk., writes bids desired early in February for extension of water mains and construction of new pumping plant and reservoir to cost about $10,000. Work includes one 135 gal. deep well supply pump, 1 domestic service 100 gal. centrifugal, 1 fire service 500 gal. centrifugal, 100,000 gal. concrete reservoir, 500 ft. new 6-in. Matheson coated pipe; all pumps to be motor driven. Engineer, S. S. Rumsey, Ch. Engr., Oliver Iron Mining Co., Virginia, Minn.

Contracting News

Of Special Interest to Engineers, Contractors, Builders and Manufacturers of Engineering and Building Supplies

★*Items marked thus give the names of parties awarded contracts.*

★**St. Paul, Minn.**—Contract has been awarded to Badger Meter Mfg. Co., Milwaukee, Wis., by City Purchasing Com. for all 2-in. meters required during 1915.

Contract reported to have been awarded to the National Cast Iron Pipe Co., of Birmingham, Ala., for 1146 tons c.-i. pipe at about $25,000.

Veblen, S. D.—Bids desired by City Clerk until Feb. 1 for purchase of $16,000 bonds to be used for the construction of water works, from plans of Dakota Eng. Co., of Mitchell.

Laramie, Wyo.—Bids desired until Feb. 23 by F. J. Coolican, City Clk., for furnishing material as follows for water system extensions, advertised in Engineering Record:

★**Monett, Mo.**—Contract reported awarded to the Keystone Driller Co., Carthage, for improvements to water works to include 2 deep wells; total cost about $20,000.

Oregon, Mo.—City will erect an additional standpipe, install a purification plant and lay additional mains with fire hydrants. Morton R. Martin, Supt.

West Plains, Mo.—City will install a triplex pump of 634,000 gal. driven by electric motors and also an electric motor of 40 h. p. for air lift system; cost about $2,000. V. V. Sears, Comr.

Benton, Ark.—Plans are now being prepared for water works and a sewer system, and an election will probably soon be held to vote on issuing bonds for same. For further information address B. F. Henry, of Benton.

★**Corpus Christi, Tex.**—We are informed further with regard to water works improvements (bids opened Jan. 8) from plans of Alex. Potter, 50 Church St., New York, that the pipe is to be furnished by R. D. Wood & Co., the filter by the Pittsburgh Filter Co., the pumps by Smith Valve Co., steel tank and tower by Memphis Steel Constr. Co., valves by Rensselaer Valve Co. The oil engine has not been fully determined as yet. Louis Lock, of Monroe, La., is the general contractor, and contract was let to him based on the use of c. i. pipe as stated in Engineering Record of Jan. 23, which also gives the unit prices of his bid.

Ennis, Tex.—Mayor W. D. Farris, has employed I. Wereskoild, of Dallas, as engineer for improvements and extensions to water works and sewer system.

Magnolia Park, Tex.—Bids desired by John B. York, City Attorney, until Feb. 5 for $94,000 water works bonds.

Temple, Tex.—City Council reported to be considering the question of constructing a concrete dam and spillway over Leon River at water works pumping station; cost about $25,000.

Rocky Ford, Colo.—Bids desired until Feb. 2 by Swink Ditch & Reservoir Co. (Belle Daring, Secy.) for constructing certain embankments on Swink Reservoirs' Nos. 2 and 5. Estimated yardage of embankment, 111,000 cu. yds.

Bellingham, Wash.—Chas. N. Beal, Supt. Water Wks., in his report to City Council recommends construction of water mains on Walnut and J Sts.; mains have also been petitioned for on Iowa, Valencia and Kentucky Sts.; total cost, $12,000.

Portland, Ore.—Wm. H. Daly, Comr. Public Utilities, writes that it is proposed to construct by city labor a dam and headworks, to cost $100,000; 30-in. supply main to cost $125,000 and 16-in. main to cost $50,000. D. D. Clarke, Engr., City Water Works.

Fall Brook, Cal.—J. M. Mack, Promoter and Chmn. Water Com., writes that 2 propositions are being considered for construction of waterworks; the first will include dam, 18-in. pipe 1 mile, 600-hp electric pumping plant; the second calls for pumping plant 250 hp, 1 mile 12-in. pipe.

San Francisco, Cal.—City Engineer estimates the cost of original construction and acquisition of property of Spring Valley Water Co., as required by Charter before any proposition can be submitted to voters at $36,300,000. Following the filing of this estimate, the Bd. of City Supervisors adopted a resolution soliciting offers for the sale of a water system to city. This step was required to be taken by the Charter before submission to voters.

Salt Lake City, Utah.—Sylvester Q. Cannon, City Engr., writes bids for construction of Twin Lakes dam in Big Cottonwood Canyon will probably not be called for until February or March.

Aylmer, Que.—Citizens have passed by-law providing for extension of intake pipe at a cost of $12,000. Jas. Baillie, Mayor.

Dunnville, Ont.—David Hastings, Acting Town Clk., writes citizens have voted $12,000 bonds to be used for constructing water works. Engineer, R. G. Kyd, of Dunnville.

Fergus, Ont.—This city will install a deep well pump, capacity 144,000 gals., driven by electric motor, estimated cost $1,500. Hugh Black, Supt.

Listowel, Ont.—City contemplates constructing a concrete reservoir, of 200,000 gal. capacity. R. Stafford, Supt.

Toronto, Ont.—Bids desired until Feb. 2 by T. L. Church (Mayor), Chmn. Bd. Control, for furnishing c.-i. special castings.

SEWERAGE AND SEWAGE DISPOSAL.

Items Arranged Geographically

Salisbury, Mass.—See "Water Works."

Brooklyn, N. Y.—Bids desired until Feb. 10 by L. H. Pounds, Boro. Pres., for furnishing material and constructing sewers in Fulton St., Brooklyn and Tompkins Aves. Bids desired on two propositions: Proposition "A," to construct all the sewers and their appurtenances in open cut, to include 2737 lin. ft. 162 in., 818 lin. ft. 126 in., 17 lin. ft. 90 in. and 6847 lin. ft. 24 to 12 in. sewer, 100 cu. yd. concrete, Class "B," 100 bbl. Portland cement, 1.8 M ft. B. M. sheeting and bracing, etc. Proposition "B," to construct some of the sewers in tunnel and some in open cut, to include 2737 lin. ft. 162 in., 818 lin. ft. 126 in. sewer in tunnel, 17 lin. ft. 90 in., 36 lin. ft. 24 and 15 in. sewer, 4000 cu. yd. brick or concrete masonry, 100 bbl. Portland cement, 100 cu. yd. concrete, Class "B," 200 M ft. B. M. foundation planking, 110 M ft. B. M. sheeting and bracing, etc.; security, $120,000. Also separately for constructing sewers in Lewis and Troy Aves., Macon and Chauncey Sts. Bids desired on two propositions: Proposition "A," to construct all the sewers and their appurtenances in open cut, to include 767 lin. ft. 144 in., 2626 lin. ft. 138 in., 32 lin. ft. 114 in., 327 lin. ft. 96 in., 92 lin. ft. 90 in., 11 lin. ft. 78 in. and 30 lin. ft. 42 in. sewer, 5813 lin. ft. 36 in to 12 in. pipe sewer, 100 bbl. Portland cement, 100 cu. yd. concrete, Class "B," 2.15 M ft. B. M. sheeting and bracing, etc. Proposition "B," to construct some of the sewers in tunnel and some in open cut, to include 767 lin. ft. 144 in., 2626 lin. ft. 138 in., 32 lin. ft. 114 in., 327 lin. ft. 96 in., 92 lin. ft. 90 in. sewer in tunnel and 11 lin. ft. 78 in. sewer, 100 cu. yd. concrete, Class "B," 100 bbl. Portland cement, 4000 cu. yd. concrete or brick masonry, 120 M ft. B. M. sheeting and bracing, 94 M ft. foundation, planking, etc.; security, $110,000.

Bids desired same time and place as above for furnishing material and constructing sewers in Prospect Pl., Dean St., Brooklyn and Nostrand Ave., to include 7417 lin. ft. 90 to 40 in. brick sewer, etc..; security, $67,000.

Buffalo, N. Y.—City Council has authorized construction of tile sewer in Leslie and Zenner Sts.

New York, N. Y.—Bids desired until Feb. 2 by Douglas Mathewson, Pres. Bronx Boro., for constructing sewers and appurtenances in Tyndall Ave., between Mosholu Ave. and W. 260th St. Security $4,800.

Maywood, N. J.—Plans for proposed sewer system and disposal plant are now before the State Bd. of Health, and an election will be held to vote on the construction of same. Engineer, Alex Potter, of New York.

★**Newark, N. J.**—Contract was awarded Jan. 26 on bids opened Jan. 12 by Passaic Valley Sewer Comrs. for Sect. 18, northerly portion main intercepting sewer in the city of Paterson, to Dock Contractor Co., Hoboken, at $178,730. Unit prices in Engineering Record of Jan. 16.

Bids desired until Feb. 9 by Passaic Valley Sewerage Comrs. (John S. Gibson, Clk.), for constructing northerly portion of Sect. 8, main intercepting sewer in city of Newark, work to include tunnel method-excav. in earth, rock or rock and earth together in free or compressed air tunnel, for 135 in. circular concrete sewer, including furnishing and use of ¾-in. circumferential metallic reinforcement plates, anchor bolts, etc., 3,292 lin. ft.; concrete masonry 6,600 cu. yds.; brick masonry 100 cu. yds.; steel for concrete reinforcement in place 12,000 lbs. Open trench method-earth excav. and refilling for 132 in. 1,552 lin. ft.; earth excav. and refill. for 126 in. semi-elliptical sewer 1,737 lin. ft.; rock excav. 500 cu. yds.; concrete masonry 8,500 cu. yds.; brick masonry 100 cu. yds.; 12,000 lbs steel for concrete reinforcement. Wm. M. Brown, Ch. Engr.

North Wildwood, N. J.—Citizens voted Jan. 12 to issue $35,000 bonds for constructing sewer system. L. M. Rice, Engr., Wildwood.

Ventnor City, N. J.—Bids reported desired until Feb. 15 by President of Council for 3460 lin. ft. intercepting sewers, installing centrifugal pumps for intercepting sewer and laying 8330 lin. ft. 14-in. c.-i. sewage force main and for sewage disposal works and outlet pipe.

Johnstown, Pa.—Councilman Grazier, in his annual report to Council recommends a bond issue of $1,100,000 for constructing sewer system and $100,000 for paving.

Philadelphia, Pa.—Bids desired by Dept. of City Transit, Bourse Bldg. (A. M. Taylor, Dir.) for reconstruction and relocation of sewers in central portion of city, preliminary to rapid transit subway construction, as follows: (Total cost of the work said to be $500,000.)

Until Feb. 23: Contr. 10, Sewer in Walnut St., 10-ft. 6-in. and 11-ft. diam., about 1615 ft. long.

Until Feb. 26: Contr. 11, Sewer in Washington Sy., Walnut and Locust Sts., 9-ft. 6-in. diam., about 1047 ft. long.

Until Mar. 1: Contr. 12, Sewer in Franklin Sq., Willow, Race and 6th Sts., 5-ft. 6-in., 6-ft. 6-in., 8-ft. diam., about 2603 ft. long.

Until Mar. 3: Contr. 13, Sewer in 9th St., 4-ft. 6-in. diam., about 682 ft. long.

Until Mar. 5: Contr. 14, Sewer in Ranstead St., 3 ft. x 2 ft., about 414 ft. long.

Philadelphia, Pa.—Tentative plans are now being considered by Dr. Dixon, State Health Comr. at Harrisburg, for the proposed sewage disposal plant for Philadelphia. Geo. S. Webster, Ch. Engr. Bureau of Surveys.

Hagerstown, Md.—Mayor J. McP. Scott has been authorized to appoint a committee, including J. B. Ferguson, City Engr., to investigate question of constructing a sewer system.

Washington, D. C.—Bids desired until Feb. 8 by Commissioners D. C. (Oliver P. Newman, Chmn.) for constructing sewers in the District of Columbia, involving 12,800 lin. ft. 10 to 24-in. pipe sewers, advertised in Engineering Record.

Charleston, S. C.—The question of constructing sewers in northwestern section of the city being considered, but nothing definite has yet been done; probable cost $20,000. J. H. Dingle, City Engr.

Cambridge, O.—Bids desired until Feb. 11 by J. B. Clark, Dir. Pub. Service, for constructing sewer and street paving (brick) work. Approximate cost $47,000.

Cleveland, O.—The Mayor has approved an ordinance providing for an appropriation of $100,000 for construction of a sewer in Dugway Brook between Helena and Primrose Aves.

Cleveland, O.—Bids desired until Feb. 4 by Commissioner Purchases and Supplies for constructing sewers in W. 90th, W. 91st., E. 79th and several other streets.

Dayton, O.—The question of constructing sewers in Dist. 6 reported under consideration; these sewers will extend west of Champa Ave. to corporation line and south of 3d St. as far south as Germantown St.; cost, $45,500.

East Youngstown, O.—Bids desired until Feb. 15 by C. R. Anderson, Village Clk., for furnishing material and constructing sewers in portions of 5th and 7th Sts.

Detroit, Mich.—The Dept. Pub. Wks. (Geo. H. Fenkell, Comr.) will include $10,000 in its 1915 estimate to continue the investigation of what method, if any, should be adopted by city to effect a more sanitary disposal of sewage.

Milwaukee, Wis.—Bids desired until Feb. 24 by Sewerage Comn. (J. H. Fowles, Secy.) for constructing intercepting sewers and connections on both sides of the Milwaukee River, Contracts 9 and 10, advertised in Engineering Record. T. Chalkley Hatton, Ch. Engr., City Hall.

Duluth, Minn.—See "Paving and Roads."

Chanute, Kan.—The City Clerk writes that no definite plans have yet been prepared for the proposed sewage disposal plant.

El Dorado, Kan.—Bids desired by O. C. Allebach, City Clk., until Feb. 16 for constructing a sewage disposal system. Worley & Black, Engrs., Kansas City, Mo.; J. H. Austin, City Engr.

Sisseton, S. D.—Bids desired by City Clerk until Feb. 1 for the purchase of $40,000 bonds to be used for construction of sewer system, from plans of Dakota Eng. Co., of Mitchell.

★**Kansas City, Mo.**—Contract for lateral sewers from Bell St. to Summit Ave. and from 41st to 48th Sts. reported awarded Jan. 14 by Bd. Pub. Wks. to M. Walsh, 2915 E. 23d St., at $103,800. Curtis Hill, City Engr.

Benton, Ark.—See "Water Works."

Ennis, Tex.—See "Water Works."

Afton, Okla.—Town Clerk writes citizens voted Jan. 21 to issue $37,000 bonds for construction of a sanitary sewer system, from plans of Benham Eng. Co., of Oklahoma City. Bids for bonds desired on Feb. 1.

Toronto, Ont.—Bids desired until Feb. 2 by T. L. Church (Mayor), Chmn. Bd. Control, for constructing Cherry St. sewer diversion; also W. Toronto sewer system, Diversion No. 2 outlet.

Vancouver, B. C.—Plans reported approved for lateral sewers connecting Canoe Creek and China Creek mains. S. B. Bennett, City Engr.

BRIDGES.

Items Arranged Geographically

Boston, Mass.—Construction of bridge over Neponsit River joining Quincy Shaw Drive and Old Colony Boule. is contemplated. Metropolitan Park Com. said to be interested.

Cumberland, R. I.—Special Commission for bridge between Cumberland and Central Falls has accepted plans of Est'en & Black, of Pawtucket, which provide for bridge 220 ft. long, 60 ft. wide, to be of concrete with granite arches.

Olean, N. Y.—F. J. Consedine, City Clk., writes that Alderman Runa D. Billington, of Olean, is chairman of committee, appointed to investigate the question of constructing a bridge over Allegan River.

Paterson, N. J.—Plans have been submitted to Park Bd. by Garwood Ferguson, County Engr., for bridge to be constructed in West Paterson; cost about $50,000.

Toms River, N. J.—Bridge crossing Barnegat Bay connecting Sea Side Heights and Toms River reported destroyed by floods.

★**Maryland.**—Following are lowest and successful bids opened Jan. 19 at the office of the State Roads Comn., Garrett Bldg., Baltimore (Wm. L. Marcy, Secy.), for constructing Hanover St. bridge, a reinforced concrete bridge, 16-30 ft. and one 32-ft. spans, girder construction, one reinforced concrete bridge, 7-15 ft. spans, girder construction, across main branch of Patapsco River, between Baltimore and Anne Arundel Counties.

Hanover St. bridge, McLean Contr. Co., Fidelity Bldg., Baltimore, at $108,868.

Paving Hanover St. bridge, P. Flanigan & Sons, Harford Road and B. & O. R.R., Baltimore, $72,872.

Arcadia, Fla.—See "Paving and Roads."

★**Ft. Lauderdale, Fla.**—Contract for constructing bridge over New River awarded by Bd. County Comrs. to Champion Bridge Co., at $22,000.

Cordova, Ala.—Construction of steel bridge over Warrior River is contemplated by Walker County Comrs. at Jasper; cost about $25,000.

Columbus, O.—See "Paving and Roads."

Zanesville, O.—Bids desired until Feb. 1 by County Commissioners for constructing 51-ft. steel bridge, in Cass Township, known as Graham Bridge.

Illinois.—Bids will be received for constructing several bridges in State of Illinois, according to plans on file at office of State Highway Comn., Springfield (P. C. McArdle, Acting State Engr.), as follows:

Atkinson, bids opened Feb. 1 at Town Hall, Atkinson, for constructing 2 reinforced concrete bridges in Cornwall Township, known as Jerome Black and Lewis bridges, spans 22 and 60 ft., 16-ft. roadway. Jerome Black Bridge to cost $950; Lewis Bridge, including piles, $3,675. Jas. H. Reed, Co. Supt. Highways, Cambridge.

Princeton, bids opened Feb. 9, at office of F. R. Bryant, Co. Supt. of Highways, Princeton, for furnishing material and constructing substructure and superstructures for 3 highway bridges as follows: One near Princeton, known as Capt. Swift Bridge, Princeton Township; this is a steel bridge, 120-ft. span, 18-ft. roadway. Engineer's estimate, including retaining wall and back fill, $8,530. Reinforced concrete bridge in Manilus Township, at Sheffield, 30-ft. span, 20-ft. roadway. Reinforced concrete bridge, Gold Township, at Sheffield, 14-ft. span, 16-ft. roadway.

Bald Bluff, bids opened Mar. 2 at Town Hall, Bald Bluff, reinforced concrete bridge in Bald Bluff Township, known as Dugan bridge, 10-ft. span, 16-ft. roadway. Engineer's estimate $1,025. C. R. A. Marshall, Co. Supt. Highways, Stronghurst.

Biggsville, bids opened Mar. 9 at Wiegand's store, Biggsville, 2 reinforced concrete bridges in Biggsville Township, known as Aug. Wiegand and Wm. Sloan bridges, spans 16 ft. and 40 ft., roadways 16 ft. and 20 ft. Engineer's estimate $650 and $2,290. C. R. A. Marshall, Co. Supt. Highways, Stronghurst.

Raritan, bids opened Mar. 16 at Union Bank, Raritan, for 3 reinforced concrete bridges in Raritan Township, known as Brokaw, Griffith and John Simpson bridges, spans each 18 ft., roadways 16 ft., 16 ft. and 20 ft. Engineer's estimates, $690, $720 and $790. C. R. A. Marshall, Co. Supt. Highways, Stronghurst.

Audubon, Ia.—Bids reported desired until Feb. 5 by County Bd. Supervisors, for about 5,000 lin. ft. corrugated culverts. C. D. Forsbeck, Co. Engr.

Ft. Dodge, Ia.—Ft. Dodge, Des Moines & Southern R.R. Co. (C. H. Crooks, Gen. Mgr., Boone, Ia.) contemplates constructing bridge over Des Moines River; cost $40,000.

Muscatine, Ia.—C. H. Young, City Engr., writes that bridge to be constructed across Mississippi River is not to be a city bridge; the parties interested are said to be Inter State Bridge & Terminal Co., of Aledo, Ill.; the bridge will probably be constructed for use of a railroad.

Bemidji, Minn.—Bids reported desired until Feb. 5 by J. L. George, County Aud., for a 120 ft. bridge over Rapids River to cost $6,500.

International Falls, Minn.—Bids reported desired until Feb. 2 by L. H. Slocum, County Aud., for constructing a steel bridge over Little Fork River.

Thief River Falls, Minn.—Bids reported desired until Feb. 2 by T. P. Anderson, Co. Aud., for constructing highway bridge over judicial ditch No. 40.

★**Bison, S. D.**—Contract awarded Jan. 19 for constructing all bridges for year 1915 to the Canton Bridge Co., of Canton. O. Ila Benjamin, Co. Aud.

★**Howard, S. D.**—Contract awarded Jan. 5 for constructing steel and concrete bridges for year 1915 to Pioneer Bridge Co., Mitchell, S. D. W. E. Leonard, Co. Aud.

★*Items marked thus give the names of parties awarded contracts.*

★**Livingston, Mont.**—Contract awarded to Minneapolis Steel & Machinery Co., Minneapolis, Minn., at $6,500, for constructing steel bridge at H St.

Palo Pinto, Tex.—See "Paving and Roads."

Chehalis, Wash.—Plans of J. S. Ward, County Engr., for 2 steel bridges, one 110-ft. and one 130-ft. span, over Newaukum River, have been approved by Bd. County Comrs.

Mayfield, Wash.—Plans being prepared by John S. Ward, County Engr. at Chehalis, for steel bridge to be constructed over Cowlitz River at Mayfield, to be 200 ft. steel span, cost about $30,000.

Wenatchee, Wash.—County Comrs. contemplate constructing bridge at Chelan Gorge; cost about $25,000.

Portland, Ore.—Bids will be opened at the office of the County Comrs., 10 a. m., Feb. 17, for constructing 3 reinforced concrete bridges on the Columbia Highway, advertised in Engineering Record.

Needles, Cal.—Surveys being made by Jas. Sourwine, County Surveyor, San Bernardino, for bridge over Colorado River at Needles.

Kooskia, Idaho. — County Comrs. at Grangeville have directed plans be prepared by County Engineer for constructing steel and concrete bridge over Middlefork, near Kooskia.

Ottawa, Ont.—New bids will be received for Pretoria Ave. Bridge. Mr. Strauss, of Chicago, has been appointed consulting engineer for the low direct lift span, Strauss patent. Balance of plans will be completed in office of F. C. Askwith, City Engr.

PAVING AND ROADS.

Items Arranged Geographically

★**Arcade, N. Y.**—Contract for paving E. Main, Liberty, Church and Park Sts. with brick to F. M. Foote.

Buffalo, N. Y.—Common Council voted to repave Clinton St.

Forestville, N. Y.—Chas. McNeal, Village Clk., writes citizens have voted to issue bonds for paving of Main St.

New York, N. Y.—Bids desired until Feb. 1 by Marcus M. Marks, Pres. Manhattan Boro., for furnishing and delivering 12,000 bags, also 1000 tons, Portland cement; 3500 tons refined asphalt, 3000 tons limestone dust, 8000 cu. yds. binder stone, 2000 tons coal tar paving cement.

Bids desired until Feb. 2 by Douglas Mathewson, Pres. Bronx Boro., for paving with sheet asphalt on concrete foundation, Jackson Ave., in all 8660 sq. yds. sheet asphalt, etc.; also regulating, grading, curbing and flagging sidewalks, etc., in Tyndall Ave., in all 11,500 cu. yds. rock excav., 4700 cu. yds. earth excav., 4810 sq. ft. concrete sidewalks, 2080 lin. ft. new curb, 4410 sq. ft. new bluestone flagging, 13,800 cu. yds. filling, etc.

New York, N. Y.—Bids desired until Feb. 4 by Marcus M. Marks, Pres. Manhattan Boro., for regulating and regrading W. 155th St., from Bway. to Riverside Drive, together with widening of Riverside Drive on the easterly side of its junction with W. 155th St., 10,650 sq. ft. concrete sidewalk, Class A, 2700 cu. yd. filling, 2940 cu. yd. earth excav., 16,000 lb. steel reinforcement bars, etc.; security, $10,000.

Beaver, Pa.—Bids desired until Feb. 9 by Philip Stevenson, Boro. Secy., for 6500 sq. yds. paving. R. R. Owens, Boro. Engr., Beaver Trust Bldg.

Johnstown, Pa.—See "Sewerage and Sewage Disposal."

Millvale, Pa.—Citizens voted $95,000 bonds for road improvements.

★**Philadelphia, Pa.**—Contract for resurfacing asphalt pavements during 1915 awarded by city to Eastern Paving Co., 1414 S. Penn Sq.

Local press reports state bids desired until Feb. 2 by Wm. H. Connell, Ch. Bureau Highways, for furnishing, delivering and applying bituminous surface treatment and furnishing torpedo sand for fine washed gravel as part of such work. The expenditure it is estimated will be about $30,000 for tar and surfacing, $15,000 for road oils and $15,000 for sand.

Maryland.—Following are lowest of bids opened Jan. 19 at the office of State Roads Comn., Garrett Bldg., Baltimore (Wm. L. Marcy, Secy.), for constructing state highways:

★Contract SM-9, St. Mary's County, from Ridge to Confederate Monument, Fred. Taylor, of Sollers, at $8,924 (awarded contract).

Contract G-8, Garrett County, through Grantsville, Hoblitzell & Price, of Myersdale, Pa., at $9,157 macadam road, or $11,842 concrete.

★Contract D-11, Dorchester County, Linkwood-Mt. Holly, Luck Constr. Co., Roanoke, Va., $36,700 macadam (awarded contract).

Contract D-11, Bond & Fedeli, Vickers Bldg., Baltimore, $42,772 concrete (no bid on macadam).

Contract P-13, Prince George's County, Meadows-Camp Springs, macadam road, Lyons Bros., 4225 8th St., N. W., Washington, D. C., $30,542 (no bid on concrete).

★Contract P-13, concrete, H. S. Swann, La Platta, Md., $32,199 (awarded contract).

★Contract P-14, Prince George's County, Upper Marlboro-Hill's Bridge, concrete, P. F. Connolly, Brighton Dist., Boston, Mass., $27,119 (awarded contract).

Contract P-14, macadam, Thomas, Poole & Hunter, Westminster, Md., $27,824.

Washington, D. C.—P. St. J. Wilson, Asst. Dir. Office of Public Roads, U. S. Dept. of Agriculture, Washington, D. C., writes that the following is an approximate list of funds which are, or will be, available for State highway work during 1915. Definite information will not be at hand until Legislatures of various States have adjourned:

Alabama	$275,000
Arizona	250,000
Arkansas	25,000
California	10,000,000
Colorado	330,000
Connecticut	2,000,000
Delaware	30,000
Idaho	250,000
Illinois	700,000
Iowa	100,000
Kansas	10,000
Kentucky	600,000
Louisiana	130,000
Maine	1,250,000
Maryland	3,500,000
Massachusetts	2,500,000
Michigan	1,000,000
Minnesota	1,500,000
Missouri	500,000
Montana	10,000
Nebraska	90,000
New Hampshire	400,000
New Jersey	1,000,000
New Mexico	125,000
New York	15,000,000
North Carolina	5,000
Ohio	3,500,000
Oklahoma	10,000
Oregon	250,000
Pennsylvania	4,000,000
Rhode Island	400,000
Utah	100,000
Vermont	450,000
Virginia	425,000
Washington	2,500,000
Wisconsin	1,250,000

Christiansburg, Va.—Bids desired until Feb. 23 by Geo. W. Wilson, Clk. County Bd. Superv., for $35,000 bonds, issued for improving roads in Blacksburg Dist.

Manassas, Va.—Washington and Valley Turnpike Co. has completed surveys for constructing 22 mile macadam road between Washington and Valley Pikes, cost about $150,000.

Richmond, Va.—Bids reported desired until Feb. 1 by State Highway Comr. G. P. Coleman, Richmond, for constructing 4½ miles gravel road between city limits and Chickahominy Bridge, in Henrico County.

Sanford, N. C.—Citizens voted $100,000 bonds for county road improvements.

Smithfield, N. C.—About $40,000 bonds for constructing roads have been sold by Ingram Township, Johnson County.

Southport, N. C.—Brunswick County has sold $35,000 bonds for road improvements to be used as follows: Northwest Township, $15,000; Town Creek Township, $10,000, and Smithville Township, $10,000. Roads will be of sand clay construction.

Arcadia, Fla.—Bids desired until Feb. 2 by A. L. Durrance, Clk. of Circuit Court, for $350,000 Special Road and Bridge Dist. No. 5 bonds.

Alexandria, La.—The citizens of Rapides Parish, at Alexandria, have voted to issue $100,000 bonds for good roads, and bids for the purchase of the bonds will be received about Feb. 15 by the Police Jury. (J. P. Turregano, Chmn.)

Mansfield, La.—Bids reported desired until Feb. 2 by Mayor for approximately 4½ miles concrete sidewalks.

Magnolia Park, Tenn.—Bids desired by John B. York, City Attorney, until Feb. 5 for $40,000 street improvement bonds.

Greenup, Ky.—Citizens voted $200,000 bonds for county road improvements.

Louisville, Ky.—Bids desired until Feb. 3 by Bd. Pub. Wks. (Roger G. McGrath, Secy.) for improving portions of 31st, 24th, 21st, 20th, 9th and 5th Sts.

Cambridge, O.—See "Sewerage and Sewage Disposal."

★**Cincinnati, O.**—Contract has been awarded by Bd. Pub. Service to Brehn Bros. Constr. Co., Cincinnati, for paving Harrison Ave. with asphalt and Madison Rd. with macadam, at total of $87,797 (bids opened Jan. 4).

★Contract for asphalt pavement on Harrison Ave. awarded by Dir. Bd. Pub. Service to Brehm Bros. at $87,979.

Columbus, O.—City Council has approved ordinances as follows: For repairs on bridges and viaducts, $10,000; resurfacing, repairing and improving existing streets, $50,000; city's portion of 1915 paving projects, $200,000.

Paulding, O.—Bids reported desired until Feb. 24 by Edw. McGaharan, Co. Aud., for constructing 37,146 lin. ft. earth road.

Port Huron, O.—Bids reported desired until Feb. 11 by Albert P. Ryan, Clk. Bd. Road Comrs., for constructing 3½ miles Class E macadam road.

Toledo, O.—Bids desired until Feb. 16 by County Commissioners for furnishing material, grading, curbing and macadamizing with a bitulithic binder Lockwood Ave., Washington Township. Chas. J. Sanzenbacher, County Aud.

Bids reported desired until Feb. 2 by Director Pub. Service for 26,357 sq. yds. paving. G. W. Tonson, City Engr.

Zanesville, O.—About $90,000 county road bonds have been sold.

★**Rochester, Ind.**—Contract for paving with limestone 10-in. deep and covered with glutain binder on Michigan Rd. has been awarded by Fulton County Comrs. to Ray Sullivan, at about $35,000.

Berwyn, Ill.—Bids desired until Feb. 2 by Bd. Local Improv. (Oscar N. Lindahl, Secy.) for constructing brick pavement on south half of W. 12th St., from Lombard to Harlem Aves. Arthur R. Wolfe, Archt., 39 S. La Salle St., Chicago.

Chicago, Ill.—Local press reports state that the Bd. Local Improv. has plans ready for paving of approximately 175 miles of streets.

El Paso, Ill.—About $49,000 is to be spent for pavements.

Minonk, Ill.—About $20,000 is to be spent for pavements.

Oakland, Ill.—Bids desired by City Clerk until Feb. 2 for work in the Washington Paving Dist. to include the following: 14,389 sq. yds. brick paving, 9250 lin. ft. curb and gutter, 527 lin. ft. marginal curb, 10,070 cu. yds. excav., 20 c. i. storm water inlets, 1300 lin. ft. 10-in. and 270 lin. ft. 8-in. sewer pipe. C. L. James, Engr., Mattoon.

Marshfield, Wis.—Bids will probably be received in Feb. or Mar. for paving Central Ave., about 25,000 sq. yds., with brick, asphalt or reinforced concrete on concrete foundation, and approximately 7000 ft. concrete curb and gutter. W. F. Reichardt, Engr., Marshfield.

Superior, Wis.—Bids desired until Feb. 5 by W. R. Russell, Chmn. Bd. Pub. Wks., for paving Tower Ave. Bids will be received on reinforced concrete, brick, sandstone, asphaltic concrete, sheet asphalt and creosoted wood block or a pavement of bituminous macadam or concrete to include 5 yr. maintenance.

Carroll, Ia.—Bids desired until Feb. 9 by J. A. Dougherty, City Clerk, for constructing approximately 33,000 sq. yds. paving. G. C. Beiter, City Engr.

West Liberty, Ia.—The Town Clerk writes that bids are desired until Feb. 16 for paving 3d, 4th, Calhoun and Spencer Sts. on cement foundation, about 40,000 sq. yds.; concrete curb and gutter, 20,000 lin. ft. Material not yet selected for paving. Benton R. Anderson, Engr., West Liberty.

Duluth, Minn.—City Commission on Jan. 11 ordered pavement, street improvement and construction of storm and sanitary sewers throughout city at an estimated cost of $230,000.

Bids reported desired until Feb. 5 by C. S. Palmer, City Clk., for one 5-ton tandem roller, steam or gasoline, with power steering gear.

St. Paul, Minn.—Bids reported desired until Feb. 1 by Aug. Hohenstein, City Purchasing Agt., for grading and improving portions of Montreal Ave., Ivy, Carbon, Marion and several other streets.

Bids reported desired until Feb. 4 by County Commissioners for constructing rock road. Probable cost $80,000.

Chanute, Kan.—Geo. T. Annex, City Clk., writes contract will probably be let about Apr. 1 for paving S. Malcom Ave. with brick on concrete foundation, asphalt fill and 18-in. concrete curb and gutter.

McKinney, Tex.—Bids desired until Feb. 3 by S. Cameron, City Secy., for paving in Improvement Dist. No. 2, requiring 27,646 sq. yds. pavement, 5074 cu. yds. excavation, 16,436 lin. ft. curb and gutter, catchbasins, etc. Bids desired on all classes of pavement. Chas. Schultz, City Engr.

Palo Pinto, Tex.—Bids reported desired until Feb. 8 by County Commissioners, Palo Pinto, for improving roads in Road Dist. No. 1 as follows: Mineral Wells and Weatherford Rd. and Mineral Wells and Palo Pinto Rd., 6.3 miles; Mineral Wells and Graford Rd. and Salesville Rd., 6.6 miles; Mineral Wells Rd. and Fairview Rd., 8 miles; Mineral Wells and Willow Pond Rd. and Old Weatherford and Palo Pinto Rd., 10 miles; Mineral Wells and Staggs Prairie Rd., 5.8 miles. Bids may be submitted on above roads, either with or without concrete bridges and culverts. Jas. C. Travilla, Engr., Mineral Wells; J. W. Brock, Co. Clk.

Pecos, Tex.—Bids reported opened Feb. 8 for improving Reeve Co. Road Dist. No. 1, to include about 65 miles grading and about 30 miles gravel surface road. Probable cost $80,000.

★**Sulphur Springs, Tex.**—Following are bids opened Jan. 19 at office of A. D. Stivers, City Engr., for 35,000 sq. yds. paving—(a) brick paving, (b) asphaltic concrete, (c) bitulithic, (d) concrete, (e) rock asphalt: Thogmartin & Gardiner, Ft. Scott, Kan., (a) $1.85 per sq. yd., total $76,747; Bert Hahn Constr. Co., Dallas, Tex., (a) $1.87, $79,290; (d) $1.50, $65,621; (e) $1.70, $71,842; General Constr. Co., Ft. Worth, (a) $1.95, $84,244; (b) $1.65, $72,297; F. P. Dellone, Greenville, (a) $2.045, $87,211; Texas Bitulithic Co., Dallas, (c) $2.27, $91,528.

★Contract was awarded for above work to Thogmartin & Gardiner, Ft. Scott, Kan., for brick paving, asphalt fill 4 in concrete base at the following bid: 35,000 sq. yds. brick paving, $1.85 per sq. yd., 20,000 lin. ft. curb, 27 cts.; 12,000 cu. yds. excav., 35 cts.; 1500 lin. ft. oak header, 3 cts.; 300 lin. ft. 12-in. drain sewer, 55 cts.; 300 lin. ft. 18-in. drain sewer, 90 cts.; 10 single catchbasins, $18.50; 20 double catchbasins, $32; 35 cu. yds. reinforced concrete culverts, $10; 500 lin. ft. resetting curb, 10 cts.; total $76,747.

Wichita Falls, Tex.—Citizens voted $45,000 paving bonds for city.

Pueblo, Colo.—Bids desired about Feb. 15 by D. P. Gammon, City Engr., for paving Main and Court Sts.

Everett, Wash.—City Council passed resolutions for paving Fulton and Wall Sts.

North Yakima, Wash.—Bids will be received about middle February by City Council for paving with asphalt, macadam or Rocmac, portion of S. 1st St.

Seattle, Wash.—Contract about to be awarded by Bd. Pub. Wks. for paving and filling Utah Ave.; cost about $186,000.

Plans have been completed by A. H. Dimock, City Engr., for improving 10th Ave., to include 24,000 sq. ft. concrete curb, 46,000 sq. yds. 5-in. brick block, etc. Bids will be received by Bd. Wks. about Feb. 19.

Wenatchee, Wash.—County Comrs. contemplates improving Chelan County State Rd. No. 10; cost $83,000.

Eugene, Ore.—County Comrs. have adopted plans for constructing roads; cost about $50,000.

Oregon City, Ore.—About $10,000 will be spent during 1915 for paving and sidewalks.

★**Bakersfield, Cal.**—Contract for grading, constructing oil macadam pavements, culverts on Bakersfield-Taft Rd. awarded by County Bd. Supervrs. Jan. 9 to Geo. S. Benson & Son, 521 Stimson Bldg., Los Angeles, at $45,999.

★**California.** — Contract was awarded Jan. 19 by Advisory Board of the Dept. of State Highway Comn., at Sacramento, for a section of road in Sutter County (between Yuba City and the northerly boundary), Div. 3, Route 3, Sect. A, to the Forest City Paving & Constr. Co., 62 Montgomery St., San Francisco.

Monterey, Cal.—About $570,000 bridge and road bonds have been sold by county.

Riverside, Cal.—Bids desired until Feb. 3 by County Bd. Supervisors, for improving Route 9 (Beaumont to Banning), consisting in part of concrete pavement, 16 ft. wide, 16,069 ft. A. B. Pilch, Co. Clk.

★**San Diego, Cal.**—Contract for a macadam road 20 ft. wide with 5 ft. sides of oiled decomposed granite reported awarded to H. G. Fenton at $21,941.

San Francisco, Cal.—Board of City Supervisors has adopted appropriations as follows: For improvement of San Bruno Ave., bet. Oakdale Ave. and Steuben St., $40,500; for improvement of Sloat Boule., from Great Highway to Ft. Francis Wood, $60,000.

Sandpoint, Idaho.—Paving of Main St. is contemplated by city, cost about $100,000.

North Bay, Ont.—Election will soon be held on question of issuing $60,000 bonds for road and street improvements.

Stratford, Ont.—A. B. Manson, City Engr., writes that it is proposed to pave Romeo, Albert and Druro Sts. with tarvia on concrete foundation, with concrete curb and gutter; cost $14,000. Nothing definite will be done until May.

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Items Arranged Geographically

Dredging—Boston, Mass.—Bids desired until Feb. 18 by Lieut.-Col. W. E. Craighill, Corps Engrs., U. S. A., Boston, for dredging in Chelsea Creek, Boston Harbor, Mass.

★**Dredging—New York, N. Y.**—Contracts have been awarded by R. A. C. Smith, Comr. Dept. of Docks and Ferries, for dredging in Boroughs Manhattan, Brooklyn, Queens, Bronx and Richmond as follows: Contract 1443, Class 1—Dredging North River, Manhattan Boro., to Morris & Cumings Dredging Co., 17 State St., New York, 250,000 cu. yds., at 11.83 cts. per cu. yd.; total $29,575; Class 2—Dredging in East and Harlem Rivers, Manhattan, Bronx, Richmond, Queens and Brooklyn, to Wm. Beard, 21 State St., New York, 80,000 cu. yds., at 18.7 cts. per cu. yd.; total $14,960 (bids opened Jan. 18).

Dredging — Baltimore, Md.—Bids were opened Jan. 20 by Bd. Awards for dredging main channel of Lazaretto Light to the piers of Transatlantic Liners, about 2,000,000 cu. yds.—(a) price per cu. yd., (b) total: Coastwise Dredging Co., Norfolk, Va., (a) 6.9 cts., (b) $138,000, 412 days; Maryland Dredging & Contr. Co., Baltimore, Md., (a) 7.45 cts., (b) $149,000, 236 days; Morris & Cummings Dredging Co., 17 State St., New York, (a) 7.83 cts., (b)

★*Items marked thus give the names of parties awarded contracts.*

$156,600, 236 days; Sanford & Brooks Co., 24 Commerce St., Baltimore, (a) 8 cts., (b) $160,000, 445 days; American Dredging Co., Philadelphia, Pa., (a) 9.3 cts., (b) $186,000, 471 days; Atlantic, Gulf & Pacific Co., 13 Park Row, New York, (a) 10.5 cts., (b) $210,000, 420 days; P. Sanford Ross, Inc., Jersey City, N. J., (a) 11 cts.; (b) $220,000, 420 days. O. F. Lackey, Harbor Engr., City Hall.

River and Harbors—Washington, D. C.—The House has passed the river and harbors bill providing for an appropriation of $34,000,000.

★**Earth Levee—Augusta, Ga.**—Bids were opened Jan. 19 by City Council, care River and Canal Comn., 747 Broad St. (Nisbet Wingfield, Ch. Engr.), for furnishing material and constructing Sect. 4 of the earth levee at Augusta, and contracts have been awarded as follows: To C. E. Teague, Columbia, S. C., for 250,000 cu. yds. earth embankment, 14 cts., and 30,000 cu. yds. excav., 16 cts, total $39,800; to Beasley Contr. Co., Birmingham, Ala., for 850 lin. ft. 4½ x 7 ft. reinforced concrete box sewer, at $6,390, and to Cottrell Constr. Co., Augusta, Ga., for 420 lin. ft. 48-in. brick sewer, 530 lin. ft. 42-in., 760 lin. ft. 36-in. and 330 lin. ft. 24-in. vitr. pipe sewer, total $8,343.

Dock Improvement, Etc.—Mobile, Ala.—The Turner Terminal Co. is reported incorporated with a capital of $200,000; the new company is to take over the Turner-Hartwell docks at foot of Virginia St. and operate same. Improvements to river front property owned by the company are contemplated and about $500,000 bonds will be issued to provide for immediate improvements. Incorporators: Turner-Hartwell Docks Co., Horace Turner, W. Marshall Higley, and others.

★**Levee — Clarksdale, Miss.**—Contract reported awarded by Yazee Delta Levee Bd. to Frank T. Constant, of Alexandria, La., for levee construction, about 2,000,000 yd. levee; approximate cost, $400,000.

Flood Protection—Canton, O.—County Surveyor Bender reported to be making surveys for 11 miles of channel through the waters of Sugar Creek, from Wayne County into Tuscarawas County.

Pier Work—Michigan City, Ind.—Bids were opened Jan. 19 by Lieut.-Col. W. V. Judson, Corps Engrs., U. S. A., Chicago, Ill., for reconstructing with piles and timber part of East Pier, Michigan City Harbor: Burk, Smith & Nelson, Muskegon, Mich., $25,280; Greiling Bros. Co., Green Bay, Wis., $29,870; Robt. A. Love & Son, Muskegon, Mich., $25,658; Great Lakes Dredge & Dock Co., Chicago, Ill., $27,614; Fitzsimons & Connell Dredge & Dock Co., Chicago, Ill., $29,584; Byrne Bros. Dredge & Eng. Co., Chicago, Ill., $36,928.

Following is unit prices of Burk, Smith & Nelson, lowest bidders, which has been recommended for acceptance:

324 lin. ft. old pier, to remove	$4.50
81 oak piles, 40 ft. long	15.00
81 oak piles, 32 ft. long	14.00
324 lin. ft. triple lap sheet piling	13.00
44.9 M ft. oak timber	65.00
80.784 M ft. fir or pine timber	50.00
15,683 lbs. tie rods with nuts and washers	.04
2,877 lbs. screw bolts with nuts and washers	.04
2,421 lbs. drift bolts	.04
283 lbs. boat spikes	.04
185 lbs. wire spikes	.04
3,175 cu. yds. stone fill, new	2.00
77 cu. yds. stone fill, from old pier	2.00
1,224 cu. yds. riprap stone, new	2.45

Drain—New Castle, Ind.—Bids reported desired until Feb. 6 by Chas. E. Byrket, County Drainage Comr., for constructing Drain 3202 of Fall Creek Drain, requiring about 500,000 cu. yds. excavation.

Drainage Work—Fairfield, Ill.—Bids desired until Feb. 4 by Comrs. Borah Drainage Dist., of Wayne County, at the office of Creighton & Thomas, Fairfield, for constructing ditches of said Dist. estimated cu. yds. excav. 617,794, total length of main and lateral ditches 101,839 ft.

★**Levee — Quincy, Ill.**—Contracts for levee and ditch work have been awarded by the Supervisors of Fabius River Drainage Dist. to W. E. Callan Constr. Co., of Omaha, Neb., and T. C. Stevens Co., of Des Moines; the two contracts total about $300,000.

Ditch—Anoka, Minn.—Bids reported desired until Feb. 4 by Arthur A. Caswell, Co. Aud., for constructing Drainage Ditch No. 54. Probable cost $11,407.

★**Ditch—Bemidji, Minn.**—Contracts have been awarded by County Comrs. Jan. 20 for constructing ditches as follows: No. 23, to J. C. Parker, Bemidji, at $77,826; No. 26, S. V. Topping, Spooner, $35,000, and No. 28, Kohler Contr. Co., Frazee, at $55,-943. J. L. George, Co. Aud.

Ditches—Fairmont, Minn.—Bids reported desired until Feb. 9 by H. C. Nolte, Co. Aud., for constructing Judicial ditches 28, 42 and 44. Probable cost $38,675. $22,-064 and $13,131, respectively.

Ditch—International Falls, Minn.—Bids desired until Feb. 4 by County Comrs. for constructing Judicial Ditches 14, 17, 18 and 20. Total mileage, 209 miles; total probable cost, about $660,000. L. H. Slocum, Co. Aud.

Ditch—Mankato, Minn.—County Comrs. reported to have authorized construction of county ditch No. 35 south and east of Mapleton; it will be of tile and cost about $42,000.

Ditches—Mankato, Minn.—Bids reported desired until Feb. 2 by County Aud. for constructing Ditch 35. Probable cost $41,492.

Ditches—Slayton, Minn.—Bids desired until Feb. 10 by County Commissioners for constructing Ditch No. 37, requiring 61,010 ft. 30 to 6-in. tile. Total estimated cost $26,200. Bids desired same place as above until Feb. 11 for constructing Ditch No. 38, requiring 22,380 ft. 20 to 6-in. tile. Total estimated cost $8,771. All drain tile shall be designated by its inside diameter; same to be Mason City clay of steam-cured cement and to be perfect in all respects.

Drainage—St. Paul, Minn.—The State Drainage Board has decided to complete the Roseau River project and will ask state for $60,000; attention of Legislature will also be called to need of a system of lateral ditches along section lines north of Roseau River to Canadian boundary, at a cost of about $85,000.

Drainage—Atchison, Kan.—Bonds in the sum of $60,000 are about to be sold by Comrs. of Atchison County for work in Delaware Drainage Dist. in the west section of Atchison County.

Drainage—Cape Girardeau, Mo.—Bids desired until Feb. 8 by Bd. Superv., Cape Girardeau, Mo., for 6,000,000 cu. yd. of excav., including contracts 11 and 17, bottom widths range from 81 to 123 ft., advertised in Engineering Record. John H. Himmelberger, Pres. Little River Drainage Dist.; Wm. A. O'Brien, Ch. Engr., Cape Girardeau.

Irrigation Work—Harlingen, Tex.—Bids reported desired until Feb. 6 by Bd. Directors, Cameron County Irrigation Dist., for removing approximately 190,000 cu. yds. silt from its canals.

Irrigation—Albuquerque, N. M.—A petition has been filed with State Engineer at Santa Fé, by Emil Mann, of Albuquerque, for 12 second feet of water from Tijeras Canyon, to irrigate 800 acres by direct diversion.

Power Plants—Concrete, Wash.—Press reports state that the Stone & Webster Corp., of Boston, Mass., will construct a power plant at Concrete, where the Baker River joins the Skagit River.

Cofferdam—Seattle, Wash.—Bids desired until Feb. 17 by Maj. J. B. Cavanaugh, Corps Engrs., U. S. A., Seattle, for excavation, removal of sections of an existing cofferdam and constructing of a new cofferdam at the Puget Sound Lake Washington lock site, Seattle.

★**Dike—Tillamook, Ore.**—H. F. Goodspeed, of Tillamook, writes contract for constructing dike along Tillamook Bay has been awarded to Collier & Stevenson, of Salem, at about 12 cts. per cu. yd.

Irrigation—Fairfield, Cal.—The Sacramento Valley Land & Water Co. will shortly start work on construction of an irrigation system in Solano and Yolo County river basins, at a cost of about $500,000. R. T. Stone and E. T. Morris are reported to be the owners.

Irrigation—Marysville, Cal.—Bonds in the sum of $100,000 are reported sold by the county to be used for irrigation work.

Syphon—Modesto, Cal.—E. A. Bayley, of Los Angeles, reported to have completed plans for constructing the Modesto Irrigation Dist. Syphon, to be 783 ft. long, of reinforced concrete.

★**Dredging—Oakland, Cal.**—Contract for dredging in Oakland Harbor is reported awarded to R. A. Perry, of Oakland, at $45,520.

Drainage—Corinne, Utah.—The citizens are reported interested in the organization of a drainage district to reclaim large tracts of land in Corinne. Attorneys Gustin, Gillette & Brayton, of Salt Lake City, are reported to be investigating the proposition.

Hydro-Electric—Newmarket, Ont.—Citizens voted to issue $16,000 bonds to construct substation and extend hydro-electric power into city. P. J. Anderson, Town Clk. and Treas.

ELECTRIC RAILWAYS.

Items Arranged Geographically

Brooklyn, N. Y.—New York Municipal Ry. Corp. is receiving bids for constructing elevated railroad from Flatbush Hills terminal of present elevated lines through Jamaica Ave. to Myrtle Ave., Richmond Hill; to be 2 track structure about 2 miles long.

Monaca, Pa.—Construction of electric railway between Monaca and Coraopolis is contemplated; cost about $350,000. John W. Reid and John J. Allen said to be interested.

Birmingham, Ala.—H. J. Milner, Pres. Milner Land Co., contemplates constructing electric railway from end of South Highlands line of Birmingham Ry., Light & Power Co. at 20th and 15th Ave. to Milner Heights.

Cleveland, O.—Cleveland, Southwestern & Columbus Ry. Co. contemplates constructing an electric railway from Berlin Heights via Wakeman to New London and Plymouth, New Washington and Bucyrus. E. F. Schneider, Gen. Mgr., Cleveland.

Marshall, Tex.—Construction of electric railway in Marshall and through Harrison County is contemplated. Franchise has been asked from City Council.

Bartlesville, Okla.—Construction of electric railroad from Bartlesville, 50 miles west, to Pawhuska is contemplated. Chamber Commerce said to be interested.

Vancouver, Wash.—Preliminary arrangements being made to construct electric railway to connect Portland, Ore.; Vancouver, Wash., and interurban lines in Clarke County, Wash. Capital $300,000. Henry Crass, 511 U. S. Bank Bldg., Vancouver, Wash., Pres.; G. W. Ford, Vancouver, Wash., Secy.

Riverside, Cal.—Riverside, Rialto & Pacific R.R. Co. plans to build 10-mile interurban railway to connect Riverside, Bloomington and Rialto. Capital $500,000. W. G. Henshaw, Tyler Henshaw and Henry Chickering said to be interested.

San Francisco, Cal.—Board of City Supervisors has adopted appropriations as follows: For construction of California St. line of Municipal Railway system, $112,808; continuation of preparation of plans and specifications for extensions to Municipal Ry. system, $10,000; for construction of extension to Geary St. car barn, additional $6,452; for altering and adding to heating system of Geary St. car barn and shops, $2,000.

Santa Barbara, Cal.—Reported competitive bids will be received Feb. 18 by Council for electric railway franchise as applied for by Richd. Hamilton Gaud for constructing a single or double track railway on certain streets.

Brigham City, Utah.—Plans being considered to extend tracks of Ogden Rapid Transit Co. from Wellsville to Brigham City. P. D. Kline, Gen. Mgr., Ogden.

RAILROADS.

Items Arranged Geographically

Morristown, N. J.—The Road Com. of Morris County Bd. Freeholders is considering a proposition from the Lackawanna R.R. looking to elimination of grade crossing at Morris Plain Station. The general plans also include erection of new station and other changes.

Paterson, N. J.—Approximately $3,000,-000 will be expended in the elimination of 15 grade crossings on the Erie Railroad in the city of Paterson under a decision of the Board of Public Utility Comrs. at Trenton, sustaining the application of city seeking abolition of all such crossings on main line between Madison Ave. and River and Putnam Sts. H. J. Harder, City Engr.

★**Harrisburg, Pa.**—The address of the Brown-King Constr. Co., the successful bidder for the Pennsylvania R.R. work at Harrisburg, noted in Engineering Record of Jan. 23, should be Commercial Trust Bldg., Philadelphia.

Pittsburgh, Pa.—Local press reports state that contract will be let about Apr. 1 by Baltimore & Ohio R. R. Co. (F. L. Stuart, Ch. Engr., Baltimore, Md.) for elimination of grade crossings at Liberty Ave. and 33d St.; cost about $500,000.

Baltimore, Md.—The Pennsylvania Railroad Co., in a letter to Mayor Preston, asks that Baltimore grant it a franchise to construct two more tunnels under city, one paralleling tunnel from Fulton Station to the North Ave. bridge and the other from Greenmount Ave. to near Broadway.

★**Orange, Va.**—Contracts reported awarded by Southern Ry. Co. for grading on a line division and double-tracking improvement in Virginia as follows: To Morrow Constr. Co., Atlanta, Ga., work between Orange and Burnley, Va., 15 miles, and to C. W. Lane & Co., Atlanta, Ga., for work between Burnley and Charlottesville, 13.7 miles; total cost, about $1,500,000.

Portland, Ore.—Preliminary steps will soon be taken by City Council on plans and estimates for the Oregon-Washington R. R. & Navigation Company's regrade. The project involves an expenditure of about $600,000, and is to result in a change of grade along railroad from E. 28th St. to city limits. J. R. Holman, Ch. Engr., Portland.

PUBLIC BUILDINGS AND SCHOOLS.

Items Arranged Geographically

Ft. Constitution (P. O. New Castle), N. H.—Bids desired until Feb. 15 by Coast Defence Commander, Ft. Constitution, for erecting a storehouse here for use of the militia coast artillery.

Athol, Mass.—Plans being prepared by Funk & Wilcox, 120 Boylston St., Boston, for erection of 2 wings to present school, each 55 x 55 ft., of brick; total cost $50,000.

Boston, Mass.—Bids desired until Feb. 9 by Schoolhouse Comrs. (Jos. B. Lomanskey, Chmn.) for erecting Boston Industrial School for Boys, Parker and Archibald Sts., Roxbury.

Dedham, Mass.—Town Com. reported in favor of erecting a 20-room high school costing $150,000.

North Adams, Mass.—Erection of a new high school, costing probably $200,000, is reported under consideration.

New Britain, Conn.—Following are lowest bids opened Jan. 20, for erecting vocational high school: Thos. W. Crowe, New Britain, general construction, $105,-401; Hanlon & Murphy, Hartford, plumbing, $6,600, and electrical work, $2,032; Libby & Blynn, Hartford, heating and ventilating, $11,725. Walter P. Crabtree, Archt., New Britain.

Binghamton, N. Y.—Following are four lowest bids received Jan. 21 by State Hospital Comn., Albany, for erecting new building for Chronic Patients at the Binghamton State Hospital:

General construction, Durolithic Co., Buffalo, $159,700; Geo. Baker Long, Worcester, Mass., $161,800; Emerson Bldg. Co., New York, $164,500, and Wm. F. Fulton, Buffalo, $168,987.

Heating—R. T. Ford Co., Rochester, $19,737; Gaylord Eng. & Constr. Co., Binghamton, $19,823; Geo. H. Drake, Buffalo, $19,836, and J. J. Horan Co., New York, $19,842.

Plumbing—Peter Keeler Bldg. Co., Albany, $13,122; Burns Bros., Syracuse, $13,-426; P. J. Sullivan Co., Inc., Syracuse, $14,866; R. T. Ford Co., Rochester, $14,933.

Electric Work—New York Constr. Co., New York, $6,315; Watson Flagg Eng. Co., New York, $6,428; S. G. Waterman, New York, $6,643; Peter Keeler Bldg. Co., Albany, $6,822.

Four lowest bids opened same time and place as above for new boiler, stack, etc., at Binghamton State Hospital: Flood & Van Wirt Co., Hudson Falls, N. Y., $19,-500; R. T. Ford Co., Rochester, $19,800; Peter Keeler Bldg. Co., Albany, $19,922, and Geo. H. Drake, Buffalo, $19,990.

New York, N. Y.—Sub-bids desired by John J. Hearn Constr. Co., 69 W. 46th St., on 4-story addition to hospital at 150th St. and St. Nicholas Ave. for the Audubon Sanitarium. Dr. H. W. Lloyd, Owner; Geo. J. Hardway, Archt., 347 5th Ave.; cost $18,000; also an addition to warden's quarters at city prison, at the Tombs; cost $15,000; Owner, city of New York. F. B. & A. Ware, Archts., 1170 Bway.

New York, N. Y.—Bids desired until Feb. 5 by Bd. Trus., Bellevue and Allied Hospitals (John W. Brannan, Pres.) for furnishing materials and making alterations to the present main building of Harlem Hospital, Lenox Ave. and 136th St.; also additions and alterations to plumbing and gas fitting. Security, $8,-500 and $2,500, respectively.

New York, N. Y.—Bids desired until Feb. 8 by C. B. J. Snyder, Supt. School Bldgs., New York, for general construction; also plumbing and drainage of new School 48, Boro. Bronx. Security $100,000 and $8,000, respectively.

Syracuse, N. Y.—Aldermen have authorized the issue of $50,000 bonds for the completing including the furnishing of the Genesee School.

Utica, N. Y.—School Bd. is considering erecting a new school on the Roskopf property, near Court St.; also about to ask bids for erecting the addition to the Academy School.

West New Brighton, S. I., N. Y.—Plans being prepared by Fredk. L. Metcalf, 143 North Ave., Plainfield, N. J., for a 2-story brick, terra cotta and limestone parochial school for the Church of the Sacred Heart; cost $100,000. Rev. W. C. Poole, Pastor.

Atlantic City, N. J.—Reported bids about to be asked by Bd. Educ. for erecting a 2-story stone school, 32 x 70 ft., according to plans by Bertram Ireland, Atlantic City.

★**Newark, N. J.**—Contracts for erecting McKinley School awarded as follows: Mason and carpenter work, to E. M. Waldron & Co., Inc., Newark, at $68,668; heating and ventilating, to Jas. F. Kelly, Newark, at $17,397; steel and iron work, Chas. Arny, Elizabeth, $14,666; roofing and sheet metal, Jacob Steinberg, Newark, $4,685; plumbing, Jaehnig & Peoples, Inc., Newark, $4,746; Underpinning & Foundation Co., New York, have secured the contract for Hercules steel piles. E. F. Guilbert, Archt., Bd. Educ.

Ridgefield Park, N. J.—Sub-bids desired by the John J. Hearn Constr. Co., 69 W. 46th St., New York, N. Y., on a school and church building to be erected for St. Francis R. C. Church at a cost of $50,000. Rev. J. M. McDonald, Rector; Fred. J. Schwartz, Archt., Paterson.

Ebensburg, Pa.—Reported County Comptroller Geo. M. Wertz has been authorized to ask bids for erecting additions and alterations to the court house.

★**Philadelphia, Pa.**—Contracts for erecting observation building and nurses' home at the Municipal Hospital awarded by Dr. Ziegler, Director Health and Charities, as follows: General contract, to P. J. Hurley, 1233 Cherry St., at $68,-924 and $51,890, respectively; plumbing both buildings, Wm. McCoach, Jr., 1607 Sansom St., at $11,735; heating, Hoben & Doyle, 21st and Pine Sts., at $10,172; electric lighting, United Electric Constr. Co., at $6,380. Bids for these buildings were opened Jan. 12. No action has been taken on bids opened at same time for erecting the power house at Holmesburg.

It is reported that new dispensary buildings costing $100,000 are to be erected at the Children's Homeopathic Hospital.

★*Items marked thus give the names of parties awarded contracts.*

★**Philadelphia, Pa.**—Contract for erecting a 1-story stone power house at Holmesburg for city of Philadelphia has been awarded to W. W. Anstrue, 1214 Filbert St., at $56,537.

★**Wilkes-Barre, Pa.**—Contract for erecting the Private Ward Hospital awarded to John Curtiss & Co., Wilkes-Barre. Cost complete about $150,000.

Charlottesville, Va.—A new wing is to be erected at the University Hospital by Trus. of Univ. of Virginia; $50,000 available.

Clemson College, S. C.—Bids will be received by R. E. Lee, of Clemson Agricultural College, at Clemson College, S. C., about Feb. 5, for erection of a Y. M. C. A. building to be 3 stories of brick and cost about $75,000.

★**Atlanta, Ga.**—Contract for erecting fireproof brick, concrete and stone laboratory and power plant for the Georgia School of Technology awarded to Pittman Constr. Co., Rhodes Bldg., at about $55,000. Francis P. Smith, Archt., Ga., School Technology.

Savannah, Ga.—Mayor has been authorized to ask bids on the $200,000 auditorium bonds.

Knoxville, Tenn.—Plans for proposed Lawson McGhee Library have been tentatively agreed upon by the Bldg. Com.; cost about $50,000.

★**Middlesboro, Ky.**—Contract for erecting U. S. Post Office awarded to John G. Unkefer & Co., Minerva, O., at $62,840.

Akron, O.—Plans for the armory, to cost $60,000, are being prepared by M. E. Harpster, Akron.

Cleveland, O.—Bids desired until Feb. 15 by Bd. Educ. for furnishing material and erecting a school at Corlett Ave. and E. 129th St. Frank G. Hogen, Dir. Schools.

Delaware, O.—Bids desired until Feb. 13 by Bd. Educ., Berlin Township School Dist., Delaware R. D. No. 4 (Floyd Griffith, Clk.), for furnishing material and erecting a brick and stone centralized school. Howard & Merriam, Archts., 8 E. Broad St., Columbus.

Fivepoints (P. O. Mt. Sterling), O.—Bids reported desired until Feb. 8 by Bd. Educ., care Murl Hosler, R. F. D. Mt. Sterling, for erecting 2-story and basement grade and high school. Probable cost $25,000. E. S. Matheny. Archt., 1484 Bryden Rd., Columbus.

★**Martel, O.**—G. J. Heileman, Clerk Bd. Educ., writes that contracts for erecting the brick and stone school have been awarded as follows (bids opened Dec. 31): General contract, to L. J. Delander, Marion, at $22,242; heating and ventilating, to Lamneck Co., Columbus, at $2,990; plumbing, to Huffman & Conklin, Columbus, at $3,997.

Toledo, O.—H. C. McClure, Structural Engr., Bd. Educ., writes that it is proposed to issue $900,000 bonds instead of $90,000 as recently stated. It is the intention to building 4 new ward schools in addition to the one recently noted and to remodel 2 schools just as rapidly as the plans can be completed.

Gary, Ind.—Following are four lowest bids received Jan. 15 by Superv. Archt., Washington, D. C., for erecting the U. S. Post Office—(a) limestone, (b) sandstone, (c) marble: The Chas. McCaul Co., 1715 Sansom St., Philadelphia, Pa., (a) $95,790, (b) $103,790, (c) $120,790; R. S. Moore, Lafayette, (a) $98,800, (b) $104,800, (c) $123,900; Geo. W. Stiles Constr. Co., Rookery Bldg., Chicago, Ill., (a) $99,300; The Conners Bros. Co., 64 W. 88th St., New York, (a) $99,750, (c) $122,750; J. L. Crouse, Box 642, Greensboro, N. C., (b) $106,115; Geo. Baker Long, Worcester, Mass., (c) $123,650; Bedford Stone & Constr. Co., Indianapolis, Ind., (b) $108,000.

Warsaw, Ind.—W. F. Maist, Secy. Bd. Educ., writes it is reported to erect a 12 or 14 room school. No plans yet prepared.

Windfall, Ind.—Plans being prepared by Chas. W. Barrett & Co., Kokomo, for erecting 2 high and grade schools.

Detroit, Mich.—Plans for the $600,000 municipal courts building, as submitted by Smith, Hinchman & Grylls, Washington Arcade, have been approved by the Council Com. on Public Buildings.

Momence, Ill.—Bids desired until Feb. 15 by Bd. Educ. (C. L. Tabler, Secy.) for furnishing material and erecting a school. N. S. Spencer & Son, Archts., Champaign.

La Crosse, Wis.—Plans being prepared by Parkinson & Dockendorf, Linker Bldg., for addition to St. Francis Hospital; cost reported to be $50,000.

Madison, Wis.—Lowest bid opened Jan. 18 by Trustees of University of Wisconsin for erecting superstructure of addition to Soils Building was submitted by T. C. McCarthy, Madison, at $49,249.

Council Bluffs, Ia.—Erection of a joint city hall and police station reported under consideration by City. Address Mayor.

Garner, Ia.—Bids desired until Feb. 11 by Trustees Garner Public Library, for the general construction (not including plumbing and heating) of a library. J. H. Jeffers & Co., Archts., Mason City.

Salina, Kan.—School Bd. is considering erecting new buildings at a cost of $100,000.

Canton, S. D.—An election will probably be held in February on the question of erecting a 3-story brick and stone school, to cost about $60,000. A. E. Jennings, Clk. Bd. Educ.

Kansas City, Mo.—Bids desired by Bd. School Directors (Jas. B. Jackson, Secy.) for furnishing material and erecting 3 schools, as follows:

Until Feb. 1, Kensington School, Poplar Ave. and 17th St.

Until Feb. 4, Wm. Cullen Bryant School, 57th St. and Bway.

Until Feb. 6, Mark Twain School, 59th Terrace and 60th St. East of Swope Parkway. Chas. A. Smith, Archt., Finance Bldg.

Little Rock, Ark.—An election will probably be held in spring to vote $150,000 bonds for the erection of a charity hospital. Chas. E. Taylor, Mayor.

San Antonio, Tex.—Frank R. Newton, Co. Clk., writes that the proposed joint city and county hospital will be fireproof, of concrete, and cost $250,000. Not yet ready for bids. Architect, Atlee B. Ayres, of San Antonio.

Lawton, Okla.—Bids reported desired until Feb. 11 by School Bd. (Alfred Molstad, Secy.) for erecting, also heating, ventilating and plumbing a public school. Jas. S. Cox, Archt., Estherville.

Oklahoma City, Okla.—See "Miscellaneous."

Oklahoma City, Okla.—The Secy. State Capitol Comn. writes with regard to constructing the State Capitol (bids for which were to have been opened Jan. 14) that all were returned unopened on account of there not being a sufficient number to insure proper competition.

Greeley, Colo.—Bids will probably be received in March by the Comrs. of Weld County, at Greeley, for the erection of a 4-story fireproof, stone, terra cotta, brick and reinforced concrete court house, 95 x 165 ft., to cost $225,000. Architect, W. N. Bowman, Central Savings Bank Bldg., Denver.

Everett, Wash.—Plans are now to be prepared by W. E. Hastings, Commerce Bldg., for a reinforced concrete school to be erected in connection with the Monroe School; cost about $50,000.

Seattle, Wash.—Reported that bids will probably be asked in March by Co. Comrs. for erecting 3 story brick and frame Juvenile Detention Home at 15th Ave. and Yesler Way which is to cost $45,000.

Seattle, Wash.—Bids desired until Feb. 17 by Port of Seattle Comn. (C. E. Remsberg, Secy., Central Bldg.) for erecting a 1 and 4-story ice and fish storage building at Turning Basin of East Waterway. Probable cost $50,000.

★**Spokane, Wash.** — The Washington Brick, Lime & Sewer Pipe Co., Spokane, reported to have secured contract for furnishing terra cotta, brick and common brick for use in the St. Michael's School in this city. Contract is reported to amount to $50,000.

Halfway, Ore.—Reported plans are being prepared for a 2-story school costing $65,000. Address School Bd.

Berkeley, Cal.—Plans are to be prepared by following architects for school buildings: Coxhead & Coxhead, Hearst Bldg., San Francisco, Cal., $37,000 building; Walter Reed, Oakland Bank of Savings, Oakland, $36,000 building; W. H. Ratcliff, First Natl. Bank Bldg., Berkeley, $70,000 building; Hobart & Cheney, Chronicle Bldg., San Francisco, $100,000 building; Jas. W. Plachek, Acheson Bldg., Berkeley, $26,000 building.

Calexico, Cal.—School bonds amounting to $65,000 have been sold.

Fresno, Cal.—Bids reported desired until Feb. 5 by C. C. Starr, Secy. Bd. Educ., for erecting Washington School. W. J. Coates, Jr., Rowell Bldg., Advisory Archt.

Puente, Cal.—School bonds amounting to $65,000 have been sold.

San Francisco, Cal.—Contract for erecting the building at the Exposition for France has been awarded to Lindgren & Co., Monadnock Bldg., at about $88,000.

Stockton, Cal.—Reported bids about to be asked by Bd. Educ. for erecting the El Dorado School, to be 2 stories and cost about $75,000.

Whittier, Cal.—School bonds amounting to $50,000 have been sold. Tuttle & Angel, 619 Delta Bldg., Los Angeles, have been engaged to prepare plans for building.

Indian Head, Sask.—Bids reported desired until Feb. 18 for erecting high school. Plans may be obtained at office of And. Dickson, Indian Head, and at office of Storey & Van Egmond, Archts., McCallum-Hill & Co. Bldg., Regina.

PRIVATE BUILDINGS.

Items Arranged Geographically

Brockton, Mass.—Plans being prepared by Lockwood & Green, Boston, for 4-story, 150 x 80 ft., warehouse; also for an office building and stable for E. C. Hall & Co.

Fall River, Mass.—Plans being prepared by L. G. Destremps & Sons, Inc., Fall River, for an orphanage for St. Joseph's Notre Dame Church.

Springfield, Mass.—Reported E. K. Wilcox Grand Army Post (Jas. L. Bowen, Secy.) is taking steps to erect the building at 46 State St. for which there is a fund of $50,000.

Worcester, Mass.—Plans being prepared by Frank A. Kendall, 45 Bromfield St., Boston, for the 4-story stone, steel and concrete fireproof building to be erected on Main St. for the Merchants' Natl. Bank; cost $500,000.

New London, Conn.—Preliminary plans prepared by Johnson & Burns, Hartford, for a 4-story brick and brownstone parish house to be erected on Washington St. for the First Baptist Church have been accepted.

Albany, N. Y.—Reported Fuller & Robinson Co., 95 State St., has been engaged to prepare plans for an addition to the Y. W. C. A. building.

Brooklyn, N. Y.—Plans prepared by Parfitt Bros., 26 Court St., for 7-story brick and reinforced concrete store and loft building to be erected on Fulton and Bond Sts. and Hanover Pl.; cost $100,000. Jason S. Bailey, 615 Washington St., Boston, Mass., Owner.

Plans filed for a 6-story apartment house to be erected in Keap and 4th Sts. at a cost of $50,000, according to plans by Shampan & Shampan.

Plans filed for 3 story brick storage and stable to be erected at 4th and Bond Sts., for Knickerbocker Ice Co., cost $50,000; Mortenson & Co., 405 Lexington Ave., New York, Archts.

Geneva, N. Y.—Bids will probably be received about Feb. 1 by C. Sweeney, of Geneva, for a 3-story, 50 x 184 ft., picture theater to be erected on Exchange St., to cost complete $40,000. Architects, Leon H. Lampert & Son, Rochester.

New York, N. Y.—Sub-bids desired by John J. Hearn Constr. Co., 69 W. 46th St., New York, on a synagogue to be erected at 24 W. 114th St. for the Congregation Kol Israel Anshi Poland; cost $75,000. Sommerfeld & Steckler, 31 Union Sq., Archts., and on alterations to 7-story loft building at 497 E. Houston St., owned by city of New York; cost $25,000. Frank H. Hines, Municipal Bldg., Supt. Pub. Bldgs. and Offices.

★**New York, N. Y.**—Thompson Starrett Co., 49 Wall St., reported to have secured contract for erecting 12-story, fireproof, steel frame, concrete, limestone and brick mercantile building at Bway. and 35th to 36th Sts. for the 1337 Bway. Co., according to plans by Clinton & Russell, 32 Nassau St.

★Contract for erecting Arcade building at 50 Bway. for Standard Oil Co. reported awarded to Cauldwell-Wingate Co., 381 4th Ave. Severance & Van Allen, Archts., 4 W. 37th St.

Reported New York Central R.R. (Geo. W. Kittredge, Ch. Engr., New York) working in co-operation with the New York State Department of Foods and Markets intends erecting a $1,000,000 wholesale market on 11th and 12th Aves. and 34th and 35th Sts. as soon as the Bd. of Estimate gives permission for the laying of tracks. Similar markets are to be erected in Brooklyn and Long Island City under the direction of the N. Y. State Dept. of Foods and Markets (John J. Dillon, State Comr.).

Atlantic City, N. J.—Saml. P. Nixon, 133 S. Broad St., Philadelphia, Pa., is having plans prepared by Marshall & Fox, 38 S. Dearborn St., Chicago, Ill., for a hotel and sanatorium which he will erect in this city.

Morristown, N. J.—See "Railroads."

Allentown, Pa.—Jacoby & Weishampel, Commonwealth Bldg., are preparing plans for the 4-story fireproof brick building to be erected on N. 9th St. by the I. O. O. F.

★**Easton, Pa.**—Contract for erecting the St. Joseph R. C. Church on the South Side awarded to A. A. Bechtel, of Easton. Cost about $70,000.

Lancaster, Pa.—Reported bids desired until Feb. 2 by Wm. C. Pritchett, Archts., 416 Walnut St., Philadelphia, for erecting a brick parish house and rectory for the St. John's Episcopal Church.

Philadelphia, Pa.—Bids will be asked, it is reported, about Mar. 1 for erecting a 4-story brick concrete and terra cotta apartment house at 41st and Baltimore Aves., according to plans by Clinton & Russell, 32 Nassau St., New York, N. Y. Cost $200,000.

★Contract awarded to A. B. Bowen, Atlantic City, N. J., for erecting a 4-story apartment house at Sydenham and Master Sts., according to plans by E. Allen Wilson, 1208 Chestnut St.; cost $50,000.

Pittsburgh, Pa.—Reported plans being prepared by F. C. Sauer, 804 Penn Ave., for a 5-story fireproof temple for the Elks to be erected on Sandusky St., at a cost of $150,000.

Scranton, Pa.—Bids reported desired by Albert J. Ward, Archt., Republican Bldg., until Feb. 1 for erecting 3-story building for Y. M. C. A. Probable cost $50,000.

★**Baltimore, Md.**—Contract for erecting a residence for Jos. C. Bloodgood at 115 Midvale Rd., Roland Park, reported awarded to Raymond E. Chambers, 36th and Roland Aves.

Atlanta, Ga.—Eggleston Memorial Methodist Church North reported to be considering the erection of a $100,000 edifice on site of old Knowles home at Ponce De Leon and Piedmont Aves.

Birmingham, Ala.—Plans about completed by Harry B. Wheelock, Birmingham, for a fireproof building to take the place of the building of Steele-Smith Co., recently destroyed by fire; cost $75,000.

Frankfort, Ky.—Bids reported desired until Feb. 9 for erecting a 2-story and basement, 23.6 x 89 ft., bank for State National Bank (E. E. Hoge, Cashier). Weber, Werner & Adkins, Archts., Mercantile Library Bldg., Cincinnati, O.

Cincinnati, O.—Bids reported desired for erecting a brick photo playhouse on Warsaw and Enright Aves., Price Hill, to cost $40,000. Zettel & Rapp, Archts., Johnston Bldg. John W. Weinig, Attorney, is a member of the company erecting the theater, which is to be known as the Price Hill Amusement Co.

★Contract reported awarded to Leibold & Gott, 134 E. 4th St., for erecting a brick apartment house at Woodburn and Humboldt Aves., to cost $45,000. Groesbeck Estate, Owner.

Evansville, Ind.—The Old State National Bank has not yet selected architect for its proposed building.

Moline, Ill.—Hammond W. Whitsett, of Moline, is preparing plans for an edifice for the First Congregational Church.

Detroit, Minn.—Later official reports state bids desired until Feb. 25 for erecting Catholic Church. Plans and specifications at Builders' Exchange, St. Paul and Minneapolis. Rev. Chas. Cannon, Pastor.

Emporia, Kan.—Bids desired about Feb. 1 by L. V. Starkey, Secy. Y. M. C. A., for the erection of a 3-story brick, stone and concrete Y. M. C. A. building, to cost about $50,000. Shattuck & Hussey, Archts., 19 S. La Salle St., Chicago, Ill.

Springfield, Mo.—S. S. Kresge Co. will remodel its store here at a cost of about $50,000.

St. Louis, Mo.—The Woodmen of the World have authorized erection of a 3 story building costing $125,000.

Greenville, Tex.—Bids desired about Mar. 1 by H. Bernard Macklin, Archt., Greenville, for the erection of a 3-story brick, stone, steel and concrete hotel, 109 x 160 ft., for W. L. Beckman, to cost $80,000.

★**Seattle, Wash.**—Contract for erecting 5-story steel frame and reinforced concrete addition to Fischer Building awarded to W. T. Butler Contr. Co., Central Bldg., at about $85,000. Bebb & Gould, Denny Bldg., Archts.

The Imperial Candy Co. has had plans prepared for a 5-story fireproof building to cost $300,000.

Tacoma, Wash.—Marcus Loew, 1493 Bway., New York, N. Y., intends erecting a theater costing $400,000. Theaters in Spokane, Minneapolis and Los Angeles are also contemplated by Mr. Loew.

NEW INDUSTRIAL PLANTS.

See also "Private Buildings."
Items Arranged Geographically

New Haven, Conn.—Mysto Mfg. Co. is having plans prepared by Lockwood & Green, Boston, Mass., for a 2-story, 160 x 60 ft., brick and steel factory building.

Suffield, Conn.—Reported Suffield-Berlin Trap Rock Co., 18 Asylum St., Hartford, is in the market for machinery for a stone crushing plant, including crushers, engines, boilers, screens, locomotive cranes, pumps, drills, cars, etc., for the plant to be erected in Suffield. L. G. Coburn, Gen. Mgr. of the company.

★**Buffalo, N. Y.**—Reported Eastern Grain Mill & Elevator Co. has awarded contract to Monarch Eng. Co., of Buffalo, for erecting a 1,000,000-bu. concrete fireproof grain elevator on the Buffalo River adjacent to the 700 ft. Farmer's Point turning basin. The elevator will be equipped with 2 movable marine legs, with a total unloading capacity of grain from vessels of 50,000 bu. per hr.

Long Island City, L. I., N. Y.—Everett Realty & Constr. Co., Flatiron Bldg., New York, N. Y., reported representing company which intends erecting a 12-story fireproof factory on Jackson Ave. and 10th St.

Mt. Vernon, N. Y.—Alfred Freeman, Archt., 29 W. 34th St., New York, N. Y., is reported receiving bids for erecting an addition to plant of A. R. Mosler & Co., at Wakefield and Webster Aves.

New York, N. Y.—Sub-bids desired by the John J. Hearn Constr. Co., 69 W. 46th St., on alterations to factory at 54th St. and 2d Ave. and at 307 E. 53d St. for the United Cigar Mfg. Co.; cost $20,000. Sommerfeld & Steckler, Archts., 31 Union Sq.

Tottenville, N. Y.—Plans being prepared by Lockwood & Green, Boston, Mass., for two 1-story smelters, 300 x 75 ft. and 300 x 50 ft., for the Nassau Smelting & Refining Wks.

★*Items marked thus give the names of parties awarded contracts.*

Jersey City, N. J.—Bids desired about Feb. 15 by David M. Ach, Archt., 1 Madison Ave., New York, for the erection of a 5-story packing house, 200 x 60 ft., and a power house, 60 x 60 ft., for the Nagel Packing Co., to be of brick and steel construction; cost of building $100,000 and equipment $75,000.

★**Paterson, N. J.**—General contract reported awarded to McClintic Marshall Co., 13 Park Row, New York, N. Y., for erecting 2 factory buildings for the East Jersey Pipe Co., at E. 37th St. and 21st Ave. Buildings to be of brick, steel and corrugated iron, cover about 100,000 sq. ft. and cost $100,000.

Philadelphia, Pa.—Bids desired by Peuckert & Wunder, Archts., 310 Chestnut St., for erecting a 2-story brick, steel and concrete fireproof ice storage house and office building to be erected for the Norris Market Ice Mfg. & Cold Storage Co., at 3d and Norris Sts.

Philadelphia, Pa.—Plans being prepared by Day & Klauder, 925 Chestnut St., for an 8-story reinforced concrete and brick 92x150 ft. factory building to be erected at 11th and Brandywine Sts. for Edw. J. Schoettle Co.

★**Charleston, S. C.**—Contract for erecting buildings for the General Asbestos Rubber Co. awarded to Fiske Carter Constr. Co., Greenville, S. C. About $125,000 will be spent by the company in erection of buildings and installation of machinery. Building to be 2 story, 300 x 100 ft., of mill construction. Lockwood Greene & Co., Boston, Mass., and Atlanta, Ga., Engrs.

Jacksonville, Fla.—Southern Cattle Co. intends erecting in connection with the Jacksonville Union Stockyards, which they have purchased, an abattoir costing $25,000.

Chattanooga, Tenn.—Wm. Lipphardt has approved the plans prepared by W. H. Sears, 424 Cherry St., for the brick and concrete plant to be erected for the Chattanooga Stamping & Enameling Co.

Brewster, O.—Reported Wheeling & Lake Erie R.R. (W. L. Rohbock, Ch. Engr., Cleveland) is considering erecting shops in this city to cost about $40,000.

Kansas City, Mo.—Reported Chicago & Alton R.R. Co. (H. T. Douglas, Jr., Ch. Engr., Chicago, Ill.) will erect a concrete grain elevator in the East Bottoms, costing $150,000.

Seattle, Wash.—The California Paper Board Mills, of San Francisco, Cal., is reported having plans prepared for a box board mill having a capacity of 20 tons, which they will erect in this city. A. H. Douglas, Jr., Gen. Mgr. of the company, will have charge of the plant.

Seattle, Wash.—See "Public Buildings and Schools."

★**Ft. Williams, Ont.**—Contract reported awarded to the Barnett & McQueen Co., Ltd., Ft. William, by the Ogilvie Milling Co., for the erection of an elevator adjoining their plant in Ft. Williams at a cost of $200,000; capacity 750,000 bushels.

Calgary, Alta.—J. C. Boyle is reported interested in the forming of a company for the purpose of erecting in this city a packing plant.

MISCELLANEOUS.

See also "Hydraulic Construction and River Improvements."

Items Arranged Geographically

Tower Clock—Boston, Mass.—Bids desired until Feb. 16 by O. Wenderoth, Super. Archt., Washington, D. C., for installation complete of a tower clock in the extension U. S. Court House at Boston, advertised in Engineering Record.

Broken Stone—New York, N. Y.—Bids desired until Feb. 4 by Park Bd. (Cabot Ward, Pres.) for furnishing and delivering broken stone and screenings (No. 1-1915) for Parks, Boro. Bronx.

Cement, Etc.—New York, N. Y.—See "Paving and Roads."

Electric Light Plant, Butler, N. J.—Bids desired until Feb. 15 by Lighting Com. of Borough Council for furnishing material and constructing a municipal lighting plant, advertised in Engineering Record. Runyon & Carey, Consulting Engrs., 845 Broad St., Newark. D. D. Smithyman, Boro. Clk.

Foundations for Towers — Washington, D. C.—Bids desired until Feb. 27 by Bureau of Yards and Docks, Navy Dept., Washington, D. C. (H. R. Sanford, Ch.), for Spec. 2134—Constructing 9 foundations for radio towers at the U. S. Naval Reservation, Chollas Heights, San Diego; Spec. 2132—Constructing concrete foundations for three 600-ft. steel radio towers at Naval Station, Pearl Harbor, Hawaii; also until Mar. 13 same place as above for Spec. 2133—Constructing concrete and pile foundations for three 600-ft. steel radio towers at the Naval Station, Cavite, P. I.

Gas Franchise—Lake Charles, La.—Bids desired until Feb. 25 by And. Cook, City Clk., for a gas franchise, advertised in Engineering Record.

Cement, Etc.—Cincinnati, O.—Bids desired until Feb. 5 at office of E. Von Bargen, City Purchasing Agent, for furnishing 1550 bbls. Portland cement and 85,000 gals. bituminous binder.

Cement—Creston, Ia.—Bids desired by B. M. Breed, Co. Aud., until Feb. 3 for materials as follows to be furnished during season of 1915: 2000 to 3000 bbls. cement, 750 to 1500 tons sand, 1000 to 3000 tons gravel, 36,000 to 72,000 lbs. reinforcing steel; corrugated iron, 500 to 750 ft. 15 in., 500 to 750 ft. 18 in., 700 to 1000 ft. 24 in., 300 to 500 ft. 30 in., 200 to 300 ft. 36 in.; 40 M to 80 M ft. lumber. Theo. S. DeLay, Co. Engr.

Freight Lift—Kansas City, Kan.—See "Waterworks."

Kansas City, Kan.—Bids desired until Mar. 1 by O. Wenderoth, Superv. Archt., Washington, D. C., for an hydraulic freight lift, pumping plant, etc., in U. S. Post Office, Kansas City.

★**Rock, Sand, Etc. — Oklahoma City, Okla.**—The Secretary State Capitol Comn. writes contracts have been awarded as follows: 8000 cu. yds. rock to Dolese Bros., Oklahoma City; 4000 cu. yds. sand, E. A. Barnes, Oklahoma City; cement, 6750 bbls. to Ada Portland Cement Co., Ada, and 6750 bbls. to Dewey Portland Cement Co., Dewey; 500 M ft. lumber to Minnetonka Lumber Co., Oklahoma City, and 850 tons reinforcing steel to Capitol Steel & Iron Co., Oklahoma City.

★**Cranes—Pearl Harbor, T. H.**—Contract for furnishing 3 electric traveling shop cranes for naval station, Pearl Harbor (bids opened Dec. 12), has been awarded to Manning, Maxwell & Moore, 119 W. 40th St., New York, at $9,483.

Proposals

For Proposals Advertised see Pages 44, 45 and 46

WATERWORKS.

Bids Close.		See Eng. Record.
Feb. 1.	System, Redford, Mich.. Adv. Jan. 16, 23.	Jan. 16
Feb. 2.	Castings, Toronto, Ont...	Jan. 30
Feb. 2.	Reservoir Embankments, Rocky Ford, Colo.....	Jan. 30
Feb. 2.	Main, Wilmington, Del...	Jan. 30
Feb. 3.	Extension, Anna, Ill.....	Jan. 16
Feb. 3.	Bonds, Rector, Ark..... Adv. Jan. 16.	Jan. 16
Feb. 3.	Wells, Rector, Ark..... Adv. Jan. 16.	Jan. 16
Feb. 4.	Pipe, Pump, Etc., Lewistown, Ill.	Jan. 23
Feb. 5.	Valves, Etc., Columbus, O.	Jan. 30
Feb. 5.	Pump, Pipe, Etc., Ipava, Ill.	Jan. 30
Feb. 6.	Water Supply for Bldgs., Springfield, O.	Jan. 16
Feb. 6.	Mains, South Newburg, O.	Jan. 30
Feb. 8.	Water Wks., East Peoria, Ill. ..... Adv. Jan. 23.	Jan. 23
Feb. 9.	Sedimentation Basin, Philadelphia, Pa..... Adv. Jan. 16 to 30.	Jan. 16
Feb. 9.	Meters, Akron, O.....	Jan. 30
Feb. 9.	System, Hawthorne, N. J. Adv. Jan. 30.	Jan. 30
Feb. 12.	Supply for Buildings, Napoleon, O.	Jan. 23
Feb. 12.	Pipe, Etc., Asheville, N. C.	Jan. 30
Feb. 15.	Reservoir, Tampa, Fla...	Jan. 30
Feb. 20.	Laying Pipe, Middletown, N. Y.	Jan. 23
Feb. 23.	Extensions, Laramie, Wyo. ..... Adv. Jan. 30.	Jan. 30
Mar. 1.	Pump. Plant for P. O. Bldg., Kansas City, Kan.	Jan. 30
Mar. 2.	Reservoir, Fitchburg, Mass.	Jan. 23

SEWERAGE AND SEWAGE DISPOSAL.

Bids Close.		See Eng. Record.
Feb. 2.	Sec. 18 (Southerly Portion), Newark, N. J.... Adv. Jan. 16, 23.	Jan. 16
Feb. 2.	New York, N. Y.....	Jan. 23
Feb. 2.	Toronto, Ont.....	Jan. 30
Feb. 2.	New York, N. Y.....	Jan. 30
Feb. 3.	Bonds, Rector, Ark..... Adv. Jan. 16.	Jan. 16
Feb. 4.	Philadelphia, Pa. ..... Adv. Jan. 23, 30.	Jan. 23
Feb. 4.	Cleveland, O.	Jan. 30
Feb. 8.	Washington, D. C.....	Jan. 30
Feb. 9.	Newark, N. J.....	Jan. 30
Feb. 10.	Brooklyn, N. Y.....	Jan. 30
Feb. 11.	Cambridge, O.	Jan. 30
Feb. 15.	East Youngstown, O. ...	Jan. 30
Feb. 15.	Ventnor City, N. J.....	Jan. 30
Feb. 16.	Eldorado, Kan.	Jan. 30
Feb. 16.	Warren, R. I..... Adv. Jan 30.	Jan. 30
Feb. 23.	Philadelphia, Pa.	Jan. 30
Feb. 24.	Milwaukee, Wis. ..... Adv. Jan. 30.	Jan. 30
Feb. 26.	Philadelphia, Pa.	Jan. 30
Mar. 1.	Philadelphia, Pa.	Jan. 30
Mar. 3.	Philadelphia, Pa.	Jan. 30
Mar. 5.	Philadelphia, Pa.	Jan. 30

BRIDGES.

Bids Close.		See Eng. Record.
Feb. 2.	Salina, Kan. ..... Adv. Jan. 23, 30.	Jan. 23
Feb. 2.	Thief River Falls, Minn..	Jan. 30
Feb. 2.	International Falls, Minn.	Jan. 30
Feb. 3.	Chehalis, Wash.	Jan. 9
Feb. 5.	Columbus, O.	Jan. 16
Feb. 5.	Bemidji, Minn	Jan. 30
Feb. 5.	Audubon, Ia.	Jan. 30
Feb. 8.	Palo Pinto, Tex.....	Jan. 30
Feb. 9.	Illinois	Jan. 30
Feb. 10.	Ivanhoe, Minn.	Jan. 23
Feb. 12.	Calgary, Alta.	Jan. 16
Feb. 17.	Washington, D. C..... Adv. Jan. 23, 30.	Jan. 23
Feb. 17.	Portland, Ore. ..... Adv. Jan. 30.	Jan. 30
Feb. 23.	Portland, Ore. ..... Adv. Jan. 16 to 30.	Jan. 16
Mar. 2.	Illinois	Jan. 30
Mar. 3.	Illinois	Jan. 30
Mar. 9.	Illinois	Jan. 30
Mar. 16.	Illinois	Jan. 30

PAVING AND ROADS.

Bids Close.		See Eng. Record.
Feb. 2.	Indiana	Jan. 16
Feb. 2.	East Providence, R. I....	Jan. 23
Feb. 2.	Indiana	Jan. 23
Feb. 2.	Prosser, Wash.	Jan. 23
Feb. 2.	Kalama, Wash.	Jan. 23
Feb. 2.	Oakland, Ill.	Jan. 30
Feb. 2.	New York, N. Y.....	Jan. 30
Feb. 2.	Mansfield, La.	Jan. 30
Feb. 2.	Toledo, O.	Jan. 30
Feb. 2.	Berwyn, Ill.	Jan. 30
Feb. 2.	Philadelphia, Pa.	Jan. 30
Feb. 3.	Indiana	Jan. 23
Feb. 3.	Baltimore, Md. ..... Adv. Jan. 23.	Jan. 23
Feb. 3.	McKinney, Tex.	Jan. 30
Feb. 3.	Louisville, Ky.	Jan. 30
Feb. 3.	Riverside, Cal.	Jan. 30
Feb. 4.	Bay City, Ore.....	Dec. 26
Feb. 4.	New York, N. Y.....	Jan. 30
Feb. 4.	St. Paul, Minn.....	Jan. 30
Feb. 5.	Superior, Wis.	Jan. 30
Feb. 5.	Duluth, Minn.	Jan. 30
Feb. 6.	Chehalis, Wash.	Jan. 16
Feb. 8.	Greenville, Pa. ..... Adv. Jan. 23.	Jan. 23
Feb. 8.	Pecos, Tex.	Jan. 30
Feb. 8.	Palo Pinto, Tex.	Jan. 30
Feb. 9.	Beaver, Pa.	Jan. 30
Feb. 9.	Carroll, Ia.	Jan. 30
Feb. 10.	Seattle, Wash.....	Jan. 16
Feb. 10.	Ivanhoe, Minn	Jan. 23
Feb. 11.	Port Huron, Tex.....	Jan. 30
Feb. 11.	Cambridge, O.	Jan. 30
Feb. 15.	Marshalltown, Ia.	Jan. 16
Feb. 15.	Cleveland Heights, O.....	Jan. 23
Feb. 15.	Emmetsburg, Ia. ..... Adv. Jan. 30.	Jan. 30
Feb. 16.	West Liberty, Ia.	Jan. 30
Feb. 24.	Paulding, O.	Jan. 30

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Bids Close.		See Eng. Record.
Feb. 2.	Contr. 28 — State Canal Wk., Albany, N. Y..... Adv. Jan. 9 to 30.	Jan. 9
Feb. 2.	Ditches, Mankato, Minn.	Jan. 30
Feb. 3.	Irrigation Wk., Payson, Utah ..... Adv. Jan. 9.	Jan. 9
Feb. 3.	Ditches, Jackson, Minn..	Jan. 23
Feb. 4.	Drain. Gonzales, La.....	Jan.
Feb. 4.	Ditches, International Falls, Minn.	Jan. 30
Feb. 4.	Ditches, Anoka, Minn....	Jan. 30
Feb. 4.	Drainage, Fairfield, Ill...	Jan. 30
Feb. 5.	Dam, etc., Harrisonburg, La. ..... Adv. Dec. 5 to 26	Dec. 5
Feb. 5.	Irrigation, Elephant Butte, N. M.....	Jan. 23
Feb. 6.	Drain, New Castle, Ind..	Jan. 30
Feb. 6.	Irrigation, Harlingen, Tex.	Jan. 30
Feb. 8.	Drainage, Elsberry, Mo..	Jan. 16
Feb. 8.	Ditch, Bemidji, Minn....	Jan. 23
Feb. 8.	Levee, Bakersfield, Cal...	Jan. 23
Feb. 8.	Drainage, Cape Girardeau, Mo. ..... Adv. Jan. 30.	Jan. 30
Feb. 9.	Steel Hull for Derrick Boat, Cincinnati, O.	Jan. 16
Feb. 9.	Ditches, Fairmont, Minn.	Jan. 30
Feb. 10.	Irrigation, Oakdale, Cal..	Jan. 9
Feb. 10.	Stone for Jetty, Lone Tree, Wash.	Jan. 23
Feb. 10.	Ditches, Slayton, Minn..	Jan. 30
Feb. 11.	Dredging, New York, N. Y. ..... Adv. Jan. 16 to 30.	Jan. 16
Feb. 11.	Wharf, Washington, D. C. Adv. Jan. 23.	Jan. 23
Feb. 11.	Ditches, Slayton, Minn..	Jan. 30
Feb. 15.	Electric Hoist, Philadelphia, Pa..... Adv. Jan. 9 to 16.	Jan. 9
Feb. 17.	Cofferdam, Seattle, Wash.	Jan. 30
Feb. 18.	Channel, Edina, Mo. .... Adv. Jan. 30.	Jan. 30
Feb. 18.	Dredging, Boston, Mass..	Jan. 30
Feb. 19.	Pumping Station for Drainage Dist., Quincy, Ill. ..... Adv. Jan. 16 to 30.	Jan. 16
Feb. 20.	Wharf, Brooklyn, N. Y... Adv. Jan. 23, 30.	Jan. 23
Feb. 23.	Dredge Tender, Galveston, Tex. ..... Adv. Jan. 30.	Jan. 30
Feb. 23.	Dredging, Portchester, N. Y. ..... Adv. Jan. 30.	Jan. 30
Feb. 24.	Valves, etc., for Dry Dock No. 1, Panama.....	Jan. 9
Feb. 24.	Pump. Plant for Dry Dock, Panama	Jan. 9
Feb. 24.	Irrigation, Payson City, Utah ..... Adv. Jan. 30.	Jan. 30
Feb. 24.	Stone for Jetty, Savannah, Ga. ..... Adv. Jan. 30.	Jan. 30
Feb. 24.	Lock Gates, Louisville, Ky. ..... Adv. Jan. 30.	Jan. 30
Feb. 25.	Dredging, Toledo, O..... Adv. Jan. 30.	Jan. 30
Feb. 26.	Tow Boats, Cincinnati, O. Adv. Jan. 30.	Jan. 30
Mar. 1.	Revetment, New London, Conn. ..... Adv. Jan. 23, 30.	Jan. 23
Mar. 2.	Steel Flue Flats, Cincinnati, O. ..... Adv. Jan. 30.	Jan. 30

PUBLIC BUILDINGS AND SCHOOLS.

Bids Close.		See Eng. Record.
Feb. 2.	Bath, N. Y..... Adv. Jan. 9 to 23.	Jan. 9
Feb. 2.	Letcher, S. D.....	Jan. 23
Feb. 2.	South Brownsville, Pa..	Jan. 23
Feb. 3.	Allentown, Pa.	Jan. 23
Feb. 4.	San Antonio, Tex.....	Jan. 9
Feb. 4.	St. Paul, Minn.....	Jan. 23
Feb. 4.	Kansas City, Mo.	Jan. 30
Feb. 5.	Huntington, W. Va.....	Jan. 16
Feb. 5.	New York, N. Y.....	Jan. 30
Feb. 5.	Fresno, Cal.	Jan. 30
Feb. 6.	Orono, Ont.	Jan. 16
Feb. 6.	Kansas City, Mo.	Jan. 30
Feb. 8.	Tiffin, O.	Dec. 26
Feb. 8.	Lima, O.....	Jan. 16
Feb. 8.	Hopedale, Mass.	Jan. 23
Feb. 8.	Fivepoints, O.	Jan. 30
Feb. 8.	New York, N. Y.....	Jan. 30
Feb. 9.	Lakewood, O.	Jan. 23
Feb. 9.	Boston, Mass.	Jan. 30
Feb. 11.	Dayton, O.	Jan. 23
Feb. 11.	Ft. Myer, Va..... Adv. Jan. 23, 30.	Jan. 23
Feb. 11.	Lawton, Okla.	Jan. 30
Feb. 11.	Garner, Ia.	Jan. 30
Feb. 12.	Sioux Falls, S. D.....	Jan. 23
Feb. 12.	Bowling Green, O.....	Jan. 23
Feb. 12.	Hudson, N. Y..... Adv. Jan. 30.	Jan. 30
Feb. 13.	Terre Haute, Ind. ..... Adv. Jan. 30.	Jan. 30
Feb. 13.	Delaware, O.	Jan. 30
Feb. 15.	Toledo, O.	Jan. 23
Feb. 15.	Cleveland, O.	Jan. 30
Feb. 15.	Ft. Constitution, N. H..	Jan. 30
Feb. 16.	Cincinnati, O.	Dec. 12
Feb. 17.	Independence, Wis.	Jan. 30
Feb. 17.	Seattle, Wash.	Jan. 30
Feb. 18.	Lincoln, Neb.	Jan.
Feb. 18.	Indian Head, Sask.	Jan. 30
Feb. 20.	Covington, Tenn.	Jan. 16
Feb. 27.	Miles City, Mont.....	Jan. 9
Mar. 1.	Champion, O.	Jan. 9
Mar. 1.	Alliance, O.	Jan. 23
Mar. 6.	Lawton, Okla.	Jan. 9

PRIVATE BUILDINGS.

Bids Close.		See Eng. Record.
Feb. 1.	Scranton, Pa.	Jan. 30
Feb. 1.	Emporia, Kan.	Jan. 30
Feb. 2.	Racine, Wis.	Jan. 23
Feb. 9.	Frankfort, Ky.	Jan. 30
Feb. 15.	New Castle, Pa.....	Jan. 9
Feb. 15.	Salem, Mass.	Jan. 23
Mar. 25.	Wilmington, Del.	Jan. 9
Feb. 25.	Detroit, Minn.	Jan. 30

NEW INDUSTRIAL PLANTS.

Bids Close.		See Eng. Record.
Feb. 2.	Barnard, N. Y.....	Jan. 23
Feb. 17.	Seattle, Wash.	Jan. 30

MISCELLANEOUS.

Bids Close.		See Eng. Record.
Feb. 2.	Fences, Etc., Devils Lake, N. D.	Jan. 23
Feb. 3.	Cement, Etc., Creston, Ia.	Jan. 30
Feb. 4.	Broken Stone, New York, N. Y.	Jan. 30
Feb. 5.	Cement, Etc., Cincinnati, O	Jan. 30
Feb. 9.	Garbage Disposal, Shelton, Conn.	Jan. 23
Feb. 10.	Steel Dump Scows, Panama.	Jan. 9
Feb. 10.	Cement, Seattle, Wash...	Jan. 23
Feb. 11.	Steam Boiler, Middletown, O. ..... Adv. Jan. 23, 30.	Jan. 23
Feb. 13.	Revolving Cranes, Norfolk, Va.	Jan. 9
Feb. 15.	Electric Light Plant, Butler, N. J. ..... Adv. Jan. 30.	Jan. 30
Feb. 15.	Momence, Ill.	Jan. 30
Feb. 16.	Incinerator Plant, Toronto, Ont. ..... Adv. Jan. 9.	Jan. 9
Feb. 16.	Tower Clock in U. S. Court House, Boston, Mass. ..... Adv. Jan. 30.	Jan. 30
Feb. 17.	Steel Rails, Etc., Melbourne, Australia	Jan. 9
Feb. 18.	El. Ry. Franchise, Santa Barbara, Cal.	Jan. 30
Feb. 25.	Gas Franchise, Lake Charles, La. ..... Adv. Jan. 30.	Jan. 30
Feb. 27.	Steel Towers, Washington, D. C.....	Jan. 9
Feb. 27.	Foundation for Radio Towers, Washington, D. C.	Jan. 30
Mar. 1.	Freight Lift, Kansas City, Kan.	Jan. 30
Mar. 6.	Street Cleaning, Joliet, Ill.	Jan. 23
Mar. 13.	Foundation for Radio Tower, Washington, D. C.	Jan. 30

★*Items marked thus give the names of parties awarded contracts.*

New Construction Activities

The passing of the quarterly dividend on the common stock of the United States Steel Corporation last week had a somewhat depressing effect on business. Securities which do not pay dividends are not acceptable to many banks and other lenders as collateral for loans. As a result, there was considerable selling of this stock, with a sharp decline in price. Recently, however, this stock has rallied, and it is hoped that this readjustment period will be passed without serious loss. The reason for passing this dividend was that the net earnings of the corporation for the last quarter of 1914 were only $10,930,170, which is less by $2,500,000 than the previous low record for the March quarter of 1904.

The railroads during the past month placed orders for 325,000 tons of rail, 3182 cars, 54 locomotives, 5000 tons of bridge work and 50,000 tons of track accessories. Negotiations are under way, however, for nearly the same quantity of rails, and for more than double the number of cars contracted for during the past month. Bids received for constructing the Government lock and dam No. 33 on the Ohio river indicate that the lumber market is still very weak, as low as $52 per thousand for hardwood timber in place having been bid.

Buildings

Building work seems to be much more active. Plans are being prepared, or have been filed in New York City for five buildings ranging in cost from $350,000 to $2,500,000. Plans are being prepared in Philadelphia for a $400,000 school building, and in Cincinnati for a $150,000 manual training school. In Chicago plans are being prepared for two large buildings, one to cost $750,000 and the other $2,000,000. The Iowa State board of education has recommended to the Legislature appropriations of $515,000 for buildings for the University of Iowa, of $200,000 for buildings for the Iowa State Teachers' College, and of $370,000 for buildings for the Iowa State College at Ames, Iowa. Bids are asked at Pittsburgh for a $500,000 experiment station for the Government Bureau of Mines. Bids have been opened or contracts awarded on the following work: Nine-story reinforced-concrete addition to a warehouse, Jersey City; $109,000 school building, New Haven, Conn.; $250,000 building, Charlotte, N. C., and $141,000 school building at Oakland, Cal. Beside these much prospective work and several contracts of smaller size are noted.

Bridges and Paving

No large bridge projects are noted. It is reported that the Missouri-Pacific Railroad will build a $315,000 viaduct in St. Louis, and a street viaduct at Peoria, Ill., to cost $109,000 has been planned. An item of interest is a request for bids on a small steel bridge in Siam. Road and paving work shows continued activity. Alton, Ill., plans $300,000 worth of paving work. The annual estimate of the Department of Public Works of Detroit, Mich., for paving amounts to over $2,000,000. Considerable paving work is coming up in Hartford, Conn. Plans for paving work have been prepared at Rochester, Duluth and Seattle. Bids are desired for further work on the Maryland State highways. Bids are desired at Arcadia, Fla., on paving work which will cost $210,000, and bids are asked on considerable paving work at Wilmington, N. C.; Pueblo, Colo.; Belle Plaine, Iowa; East San Diego, Cal.; Seattle and Spokane. Bids on brick paving amounting to $52,000 have been opened at Galveston, Texas. Paving contracts of about the same size have been awarded at Alexandria, Va., and at Royal Oak, Mich.

Waterworks and Sewers

The low bid received Feb. 2 for a section of the Passaic Valley sewer was $191,894. Bonds have at last been sold at par for constructing a sewer at Fall River, Mass., and a contract for $173,834 awarded on bids which were received Sept. 4. The low bid for sewer work at Rockford, Ill., was $92,473. An ordinance authorizing the construction of a $145,000 sewer has been passed at Rochester, N. Y. Plans are being prepared for a sewer system to cost $120,000 for Bradley, Ill. New Haven, Conn., desires bids on $100,000 worth of sewer bonds. It is reported that plans are nearly complete at Baltimore for the construction of a $100,000 fallsway covering Gwynns Run. Portland, Ore., has received bids on 4250 tons of cast-iron pipe for the use of the water department. Bids are desired at Mt. Morris, N. Y., for a new waterworks system. It is reported that Fort Worth, Texas, will construct a conduit to Lake Worth reservoir at a cost of $400,000. Bids are desired at Dayton, Ohio, for $150,000 worth of waterworks bonds.

Miscellaneous

The contract for 2,500,000 cu. yd. of dredging in Baltimore harbor has been awarded to the Coastwise Dredging Company of Norfolk. The two lowest bidders on Government lock and dam 33 on the Ohio river near Maysville, Ky., were within $1000 of each other. The lowest bid was $972,544. It is reported that a drydock to cost $325,000 has been contracted for at Cleveland. Bids are desired on a large ditch at Slayton, Minn. The Jellico & Western Railroad is reported to be surveying a 30-mi. extension in Tennessee. It is stated that new bids will be asked on the municipal wharfs at Richmond, Cal. The low bid for furnishing and erecting lock gates for Dam 15 on the Ohio river was $28,741, made by the Penn Bridge Company.

WATERWORKS.

Items Arranged Geographically

Berlin, N. H.—The construction of water works is contemplated, but nothing definite has yet been done. Daniel J. Daley, Mayor.

Ellington, Conn.—The Water Works Co. contemplate installation of an engine, tank and pump for emergency. F. M. Charter, Owner.

New Britain, Conn.—It is proposed to develop new water supply by dam, pipe line or terminal; preliminary work only to be done this year. Work will be under supervision of Water Comrs. and City Egr.

Mt. Morris, N. Y.—Bids desired until Feb. 15 by J. A. Striker, Village Clk., for furnishing material and constructing a new distribution system for water works, approximately 9 miles of 10, 8 and 6-in. c.-i. water mains, etc., advertised in Engineering Record. Specifications (for reference) are on file at New York office of Engineering Record. J. F. Witmer Co., Engrs., Buffalo.

Shortsville, N. Y.—An additional standpipe is proposed. Chas. H. Davidson, Supt.

Troy, N. Y.—Bids desired Feb. 9 by Bd. Contract and Supply (John J. McLaughlin, Secy.), for 9740 ft. 16 in. Class A. c. i. pipe.

★Contract awarded Jan. 29 by State Contract and Supply for 570 tons Class B 16-in. pipe to U. S. Cast Iron Pipe & Fdry. Co., Philadelphia, Pa., at $20.20 per ton; specials $55 per ton.

Margate City, Atlantic County, N. J.—Bids desired until Feb. 14 for one triplex piston pump with capacity of 500 gals. of water per minute; also bids for one centrifugal pump with a capacity of 700 gals. of water per minute; also same time and place separate bids for furnishing one 100-hp gas producer, one 50-hp gas engine, vertical type, with at least 2 cylinders and closed base and self-starter; one 50-hp Deisel crude oil engine and self-starter, both proposals advertised in Engineering Record. A. B. Repetto, City Clk.

Juniata, Pa.—The Water Commission (N. E. Roher, Pres.), propose constructing a new water main of not less than 16-in. diam. Engineer, Harvey Linton, 1717 13th St., Altoona.

Contracting News

Of Special Interest to Engineers, Contractors, Builders and Manufacturers of Engineering and Building Supplies

Philadelphia, Pa.—Bids reported desired until Feb. 9 by M. L. Cooke, Dir. Dept. Pub. Wks., for furnishing 48 in. c. i. pipe and specials for the West Philadelphia pipe line, also 36 in. valves for same pipe line and for laying 48 in. pipe line.

Annapolis, Md.—Bids desired until Feb. 9 at Bureau Supplies and Accounts, Navy Dept., Washington, D. C., for delivering a turbine pump at Naval Academy, Annapolis.

★**Hartwell, Ga.** — Contract reported awarded to J. B. McCrary Co., Atlanta, for the construction of water works.

★**Manatee, Fla.** — Contract reported awarded to R. M. Hudson, of Atlanta, Ga., for constructing water works, a system of storm and sanitary sewers, paving and curbing about 3 miles of street with either brick or asphalt concrete. Frank J. Fagin, City Engr.

Newport, Ky.—Mayor Helmbold, in his annual report to City Comrs., recommends improvement of water system, reconstruction of sewers and resurfacing streets in shopping district with brick.

Akron, O.—Bids reported desired until Feb. 12 by C. P. Parker, Dir. Pub. Service, for 2,075 water meters, 3,400 corporation cocks and 2,050 stop cock boxes.

Cleveland, O.—Bids desired until Feb. 12 by Commissioner Purchases and Supplies, for furnishing galvanized steel pipe for Dept. Pub. Utilities, Div. of Water.

Dayton, O.—Bids desired until Feb. 9 by Hugh Wall, City Accountant, for $150,000 bonds, issued for purpose of improving and repairing the water works system.

Newark, O.—This city contemplates issuing $30,000 bonds for enlarging light plant by installation of 300 kw. turbo generators with necessary boiler capacity at municipal water works pumping station. W. C. Christian, Dir. Public Service.

Ann Arbor, Mich.—Manley Osgood, City Engr., writes citizens voted Jan. 25 to levy an $8,000 direct tax for water works experiment.

Manley Osgood, City Engr., writes with regard to the above that immediate work consists of constructing a well 16 ft. diam., 30 ft. deep, sheet piling construction; after construction this well will be pumped for a period of 20 or 30 days and co-ordinate investigation and measurement will be made in the locality to determine if this ground water source is sufficient for the needs of the city. On the outcome of this investigation depends the character of further water works improvements. Bids on construction and pumping will be received about Feb. 14.

Detroit, Mich.—The Fire Commission, in its annual report to the Bd. of Aldermen, asks $119,500 for extensions to high-pressure system.

P. N. Jacobsen, 361 Cadillac Boule., proposes the construction of a concrete tunnel to Lake Erie for the purpose of supplying Detroit and cities between Wyandotte and Port Huron with water; capitalists with whom he is associated are willing to construct tunnels if contracts for water supply could be obtained from cities along the route.

Saginaw, Mich.—Bids desired until Feb. 9 by Robt. F. Johnson, Comr. Light, Water and Sewers, for furnishing f.o.b. cars Saginaw, c.-i. water and special castings.

Hillsboro, Ill.—City Council has engaged Phillips Eng. Co., of St. Louis, Mo., to make surveys for water supply for city.

Churdan, Ia.—Bids desired until Feb. 8 by City Clerk, for constructing water works system, to consist of approximately 4492 ft. 8, 6 and 4-in. standard weight c. i. pipe, 5000 lbs. c. i. specials, hydrants and valves, 50,000-gal. tank on a 90-ft. tower, pump house, etc. W. H. Grover & J. Q. Wickham, Engrs., Ames.

St. Louis, Mo.—County Comrs. reported to have granted city permission to construct an 8-mile water main, from Chain of Rocks to Ft. Bellefontaine, to cost about $40,000.

Rison, Ark.—Plans being prepared by A. C. Moore, of Joplin, Mo., for water works and electric light plant; cost $25,000. L. C. Ackerman, City Clk.

Ennis, Tex.—The water works improvements contemplated here, include extension of pipe line and construction of 2 elevated water tanks, about 75,000 gals. capacity each. Engineer, N. Werenskold, of Dallas. W. D. Ferris, Mayor.

Ft. Worth, Tex.—This city will spend about $400,000 for construction of a conduit line to Lake Worth reservoir.

Cordell, Okla.—Bids desired until 7:30 p. m. Feb. 8 for furnishing material and making extension to water works system in the city of New Cordell. For further information address Benham Eng. Co., 435-7 American National Bank Bldg., Oklahoma City.

Quinton, Okla.—Town Council reported to be considering construction of water works.

Tulsa, Okla.—Plans have been prepared by Layne & Bowler, of Houston, Tex., for a well system; also plans by Water Comrs. for a reservoir system. Neither has yet been approved by Bd. of City Comrs. T. C. Hughes, City Engr.

Yale, Okla.—E. A. Pierson, City Clk., writes bids will be received Feb. 20 for purchase of $25,000 bonds for water works extensions; also same date for construction work. Engineer, D. B. Merry, of Oklahoma City

Roslyn, Wash.—Election will probably be held in spring on question of issuing $10,000 bonds for water works extension.

★Items marked thus give the names of parties awarded contracts.

Eugene, Ore.—Plans reported completed by Water Board (B. F. Kenney, Chmn.), for construction of the 2,500,000-gal. reservoir on College Crest; cost $30,000. It is said that an additional $10,000 will be spent for installing new mains.

★**Linnton, Ore.**—Contract awarded Jan. 21 for constructing a 50,000-gal. wood gravity tank for West Oregon Lumber Co., to W. C. Moore, of Portland.

Portland, Ore.—D. D. Clarke, Engr. Water Bd., writes it is proposed to construct during the year 1915, as a part of the water supply system of city, c.-i. water mains as follows: 14,280 ft. 30-in., $113,000; 4500 ft. 24-in., $24,000; 5280 ft. 16-in., $17,600, and 6300 ft. 12-in., $19,200, with probably several miles of smaller sizes, work to be done by department forces.

It is reported that Wm. H. Daly, Comr. Pub. Utilities, will soon let contract for 4250 tons c.-i. pipe for use of Water Dept. during present year.

Salt Lake City, Utah.—The State Land Board has submitted to the Governor its report on the Hatchtown dam, recommending that State Legislature be asked to appropriate $100,000 to rebuild reservoir dam at another site.

Brockville, Ont.—A filtration plant has been recommended for this city, to cost $30,000.

Ottawa, Ont.—City Council has passed bill providing for an overland intake pipe, to cost $260,000, and an application is now being made to State Legislature. R. L. Haycock, Water Works Engr.

Royal Oak, Saanich, B. C.—Bids desired until Mar. 12 by Hector S. Cowper, Clk. Municipal Council, Municipal Hall, Royal Oak, Saanich, for materials for water works, to include c.-i. pipe and special castings, valves and hydrants.

Cartagena, Colombia, S. A.—It is reported that the Cartagena, Colombia, Water Works, Ltd., owned and controlled by a British corporation, will soon be in the market for 12 miles of pipe, and while it is probable that this will be supplied from England, American manufacturers could address the local manager or the London office with regard to same. Addresses of local manager and London office may be obtained from the Bureau of Foreign and Domestic Commerce, at Washington, D. C., or its branch offices.

SEWERAGE AND SEWAGE DISPOSAL.

Items Arranged Geographically

★**Boston, Mass.**—Following are 3 lowest bids opened Jan. 21 by Pub. Wks. Dept. for the Dorchester Brook sewer: West Roxbury Trap Rock Co., Spring St., West Roxbury, $44,410 (awarded contract); A. Baruffaldi, 7 Parker Pl., Somerville, $46,538, and M. Russo & Son, 240 North St., Boston, $47,235.

Plans for replacing the old culvert sewer on Brook Place and West Cottage St., across Cottage to Judson to Brookfield to Dacia Sts., Dorchester, at a cost of $60,721, have been approved by the Mayor. The work will be done in concrete, the sewer to be 7 ft. in diam.

Fall River, Mass.—The Bd. of Aldermen has passed a loan order of 150,000 for in-sewers and $50,000 for street construction. J. H. Kay, Mayor.

★H. K. Barrows, 6 Beacon St., Boston, Consulting Engr. for Fall River Reservoir Comn., writes that contract No. 1, for reinforced concrete intercepting drain and appurtenances was awarded Jan. 28 to Hanscom Constr. Co., of Boston, in accordance with its bid opened Sept. 4, amounting to $173,834. The delay in awarding this contract has been on account of financial conditions, which have prevented the sale of bonds to pay for the work at par, as required by the act under which the work is being done.

Pittsfield, Mass.—City Council has petitioned State Legislature for permission to issue $100,000 bonds for sewer extensions.

Warren, R. I.—Bids will be opened Feb. 16 by Sewer Comrs. (Wm. H. Smith, Secy.) for constructing about 15,000 ft. 8 to 18-in. sewers, sedimentation tanks and 2 small collection wells and motor houses. Chas. F. Chase, Engr., 75 Westminster St., Providence.

New Haven, Conn.—Contract is about to be let by F. L. Ford, City Engr., for construction of Edgewood Ave. sewer; 2 plans will be considered, one for a sewer to cost about $15,000; another for a temporary sewer to care for storm drainage, at a cost not to exceed $8,000.

New Haven, Conn.—Bids desired until Feb. 25 by Arthur D. Mullen, City Controller, for $100,000 sewer construction bonds and $100,000 street pavement bonds.

Albany, N. Y.—Hering & Gregory, of New York, have been retained by the Bd. of Contract and Supply to prepare plans and specifications for an electrically operated sewage pumping station to be built in connection with the sewage disposal works; capacity 30,000,000 gal. daily.

★**Long Island City, L. I., N. Y.**—Contract reported awarded Jan. 29 by President of Queens Boro. to Jos. L. Segretto for constructing sewers in several sections of Queens Boro., at a total cost of $17,660.

Rochester, N. Y.—Council has adopted a first ordinance for Main St. and Front St. sewer; cost estimated at $145,000.

Erie, Pa.—Theo. Eichhorn, Dir. of Streets and Pub. Improv. in his annual report, recommends construction of a $23,000 storm water sewer system in southeastern section of city, and storm sewers in northeastern section of city.

Harrisburg, Pa.—Bids desired until noon Feb. 5 by W. H. Lynch, Supt. Streets and Pub. Improv., for constructing sewers in 2d. Market, Cumberland and 7 other streets.

Johnstown, Pa.—Plans as prepared by C. P. Collins, Sanitary Engr., for sanitary sewer system are reported to have been presented for approval to the State Bd. of Health at Harrisburg.

Lebanon, Pa.—Jas. H. Fuertes, of New York, has been engaged to prepare plans for sewage disposal plant in southern section of city. T. R. Crowell, City Engr.

Baltimore, Md.—Calvin W. Hendricks, Ch. Engr. Sewer Comn., reported to be completing plans for construction of a fallsway for the west end, covering Gwynns Run, between Frederick Rd. and Baltimore St.; cost about $100,000.

Washington, D. C.—Bids desired until Feb. 15 by Comrs. D. C. for constructing sewers in District of Columbia involving the constructing of approximately 3500 lin. ft. trunk sewers 6 ft. 6 in. to 7 ft., advertised in Engineering Record.

Clearwater, Fla.—J. N. Drew, City Engr., writes that city will spend about $20,000 for sewers.

Manatee, Fla.—See "Water Works."

Newport, Ky.—See "Water Works."

Akron, O.—Local press reports state that a contract amounting to $91,000 is yet to be let for filter material for sewage disposal plant.

Cleveland, O.—Bids desired until Feb. 11 by Commissioner Purchases and Supplies, for constructing sewers in Vineyard and Way Aves., E. 13th and several other streets.

The State Bd. of Health is reported to have ordered this city to construct within 3 years a sewage disposal plant; it will probably be located on the east side.

Columbus, O.—The Council has approved ordinances providing for improvements as follows: $250,000 for a storm sewer in 1st Ward and $100,000 for a storm sewer for Maryland Ave. City's portion of repair of sewers and drains, $25,000; extension of the Clintonville storm sewer, $8,000.

Hamilton, O.—It is reported that bonds in the sum of $50,000 will be issued to reconstruct the Crawfords Run sewer, which was damaged by flood.

Stamford, Conn.—Following are bids opened Dec. 10 by Com. on Garbage and Sewage Disposal for constructing sewage disposal works with a daily capacity of 3,000,000 gal. from plans of Jas. C. Harding, Engr., 170 Bway., New York, N. Y.: (a) Fred N. Lewis, New York, $59,877; (b) Suburban Eng. Co., New York, $60,834; (c) Messrs. Young & Hyde, New York, $75,660; (d) Harris Constr. Co., Stamford, $77,078; W. B. Elyrich, Grantwood, N. J., $78,885; Jas. A. Daly & Merritt, Port Chester, N. Y., $79,784.

Unit prices of 4 lowest bids, a, b, c and d (contract not yet let):

	(a)	(b)	(c)	(d)
Engineer's Office (lump sum)	$150.00	$375.00	$380.00	$250.00
8,000 cu. yds. earth excav.	1.25	1.00	2.06	1.50
2,500 cu. yds. rolled embankment	.25	.35	.26	.80
50 cu. yds. rock excav.	1.00	3.50	3.20	4.00
Settling tanks (lump sum)	37,150.00	36,000.00	40,750.00	47,250.00
Sludge drying beds (lump sum)	1,250.00	2,000.00	2,760.00	2,126.00
Sterilizing devices and building (lump sum)	3,000.00	4,150.00	5,760.00	4,520.00
573½ ft. 20-in, c. i. pipe and specials	2.50	4.00	3.00	2.75
326 ft. 8-in. c. i. pipe and specials	1.50	1.60	1.26	.90
599 ft. 4-in. c. i. pipe and specials	1.00	.80	.52	.50
50 ft. 18-in. vitr. pipe	1.00	.80	1.50	.80
350 ft. 12-in. vitr. pipe	.40	.50	.75	.45
50 ft. 6-in. vitr. pipe	.25	.40	.40	.22
7 8-in. gate valves	21.50	25.00	29.00	30.00
1 4-in. gate valve	12.50	15.00	16.00	12.00
17 storm water inlets	20.00	35.00	19.50	25.00
5 manholes	50.00	50.00	45.00	55.00
1,500 sq. yds. macadam roads	1.25	.95	1.05	1.25
Screen chamber (lump sum)	1,600.00	2,400.00	2,500.00	2,640.00
50 cu. yds. additional concrete	7.50	10.00	11.50	11.00
10,000 lbs. additional steel reinforcement	.025	.031	.04	.03
1¼ acres seeding	50.00	40.00	63.00	45.00

Newark, N. J.—Bids were opened Feb. 2 by Passaic Valley Sewerage Comrs. (Wm. M. Brown, Ch. Engr.), Essex Bldg., Newark, for constructing southerly portion of Sect. 18 of main intercepting sewer in city of Paterson; the work includes the River Route and the Tunnel Route, as follows:

Sect. 18, River Bank Route: (a) N. Y. & N. J. Constr. Co., Newark, N. J., $191,894; (b) Mason & Hanger Co., Inc., New York, $204,286; (c) Jas. Ferry & Sons, Inc., Baltimore, Md., $335,886.

	(a)	(b)	(c)
2,308 lin. ft. earth excav. and refill, in trench, for 65-in. concrete sewer	$38.00	$42.00	$67.00
1,040 lin. ft. excav. in earth, rock, or earth and rock together and refill, in tunnel, for 65-in. concrete sewer	51.00	55.00	115.00
100 cu. yds. rock excav., in trench	3.00	3.00	5.00
2,000 cu. yds. concrete masonry, with Portland cement mortar, in trench	10.25	10.50	12.00
1,200 cu. yds. concrete masonry, with Portland cement mortar, in tunnel	14.00	13.50	15.00
100 cu. yds. brick masonry, in manholes and elsewhere, laid with Portland cement mortar, including all appurtenant work	15.00	16.00	20.00
1,000 lbs. steel, for concrete reinforcement, in place	.05	.05	.05
2,000 long tons riprap, in place	1.00	2.50	4.00
Special steel and timber sheeting and shoring bet. Sta. 17 + 25 and Sta. 18 + 05, including all support and protection of N. Y., S. & W. R.R. bridge (lump sum)	10,000.00	6,000.00	9,100.00

Sect. 18, Tunnel Route: (a) Chas. A. Haskin, Boston, Mass., $187,392; (b) Mason & Hanger Co., Inc., New York, $195,590; (c) N. Y. & N. J. Constr. Co., Newark, $212,400; (d) Booth & Flinn, Ltd., New York, $286,600; (e) Jas. Ferry & Sons, Inc., Baltimore, Md., $335,991.

	(a)	(b)	(c)	(d)	(e)
695 lin. ft. earth excav. and refill, in trench, for 65-in. concrete sewer	$27.50	$42.00	$40.00	$60.00	$82.00
2,700 lin. ft. excav. in earth, rock, or earth and rock together and refill, in tunnel, for 65-in. concrete sewer	48.00	45.00	48.00	70.00	82.00
100 cu. yds. rock excav., in trench	5.00	3.00	3.00	3.00	.01
600 cu. yds. concrete masonry, with Portland cement mortar, in place, in trench	8.50	9.50	11.00	12.00	15.00
3,100 cu. yds. concrete masonry, with Portland cement mortar, in place, in tunnel	10.00	12.00	15.00	15.00	15.00
100 cu. yds. brick masonry, in manholes and elsewhere, laid with Portland cement mortar, including all appurtenant work	20.00	16.00	15.00	18.00	20.00
2,000 lbs. steel, for concrete reinforcement	.04	.05	.05	.05	.05

★**Rockford, Ill.**—Following are unit prices of 4 lowest bids for construction of sewers in south end sewer district (bids opened Jan. 27 by Bd. Local Improv., W. W. Bennett, Pres.): (a) J. B. Sheets Co., Pittsburgh, Pa., $98,473 (awarded contract); (b) E. T. Webster, St. Paul, Minn., $98,837; (c) M. W. Holben, Gary, Ind., $99,477; (d) Western Constr. Co., Iowa City, Ia., $99,913.

	*(a)	(b)	(c)	(d)
17,081 ft. 9-in. standard sewer pipe	$0.79	$0.75	$0.75	$0.80
11,942 ft. 10-in. standard sewer pipe	.79	.83	.75	.90
6,687 ft. 12-in. standard sewer pipe	.95	.94	.90	1.00
1,637 ft. 12-in. D. S. sewer pipe	1.05	1.02	1.00	2.25
2,140 ft. 15-in. standard sewer pipe	1.55	1.25	1.50	1.15
2,041 ft. 15-in. D. S. sewer pipe	1.58	1.31	1.80	2.20
522 ft. 18-in. standard sewer pipe	1.85	1.62	1.60	1.50
541 ft. 18-in. D. S. sewer pipe	1.92	1.72	2.00	2.50
1,324 ft. 20-in. standard sewer pipe	1.99	1.85	1.80	2.00
455 ft. 20-in. D. S. sewer pipe	2.07	1.97	2.20	2.50
787 ft. 24-in. standard sewer pipe	2.39	2.28	2.10	2.20
3,641 ft. 27-in. standard sewer pipe	2.70	2.95	2.60	2.25
1,326 ft. 30-in. standard sewer pipe	3.33	3.60	3.10	3.00
4,542 ft. 33-in. standard sewer pipe	3.86	4.00	4.10	3.00
3,593 ft. 33-in. D. S. sewer pipe	4.00	4.20	4.70	4.50
520 6 x 9-in. Ys	.29	.42	.40	.45
335 6 x 10-in. Ys	.30	.45	.40	.50
173 6 x 12-in. Ys	.38	.72	1.00	.50
16 6 x 12-in. Ts	.50	.80	1.00	.65
60 6 x 15-in. Ys	.55	.85	1.50	.75
35 6 x 15-in. Ts	.60	.90	1.50	.80
8 6 x 18-in. Ys	.78	1.25	2.00	.95
4 6 x 18-in. Ts	.91	1.35	2.00	1.00
30 6 x 20-in. Ys	.99	1.55	2.10	1.20
8 6 x 20-in. Ts	1.14	1.75	2.10	1.40
10 6 x 24-in. Ys	1.43	1.95	2.50	1.65
15 6 x 27-in. Ys	2.64	3.75	4.00	1.75
37 6 x 30-in. Ys	2.91	3.95	4.50	1.75
10 6 x 33-in. Ts	3.50	5.10	5.00	1.75
49 ordinary manholes	40.00	42.50	39.00	48.00
11 combination manholes	70.00	65.00	60.00	80.00
33 lampholes	10.00	7.50	10.00	15.00
10 flush tanks	85.00	65.00	75.00	85.00
50 cu. yds. concrete	6.50	5.00	6.00	7.00
60 ft. 24-in. standard c.-i. water pipe	6.00	4.80	5.00	8.00

Salem, O.—The City Council will probably soon issue $10,000 bonds for completion of intercepting sanitary sewer system and diversion of sanitary sewage now flowing into county ditch to sewage disposal plant northwest of city.

Springfield, O.—City Council has passed an ordinance to issue $15,000 bonds for constructing storm sewers in N. and S. Main Sts.

Bradley, Ill.—Plans being prepared by Ætna Eng. Bureau, 17 N. La Salle St., Chicago, for a sewer system; cost $120,000.

East St. Louis, Ill.—Bd. of Pub. Improv. reported to have decided to construct the Kansas-Division Ave. sewer; estimated cost $10,284.

Beaver Dam, Wis.—Plans being prepared by C. P. Parsons, Watertown, for construction of a sewer system.

★**Superior, Wis.**—Contract for constructing new outlet for Winter St. main sewer reported awarded to Edw. Johnson, at $10,347.

Des Moines, Ia.—Rights-of-way are now being procured from property holders for the proposed close creek gravity sewer system; length 22 miles of 8 to 24-in. pipe.

Newton, Kan.—It is proposed to spend $30,000 for the construction of a storm sewer; city to do the work. F. E. Devlin, City Engr.

★**Dallas, Tex.**—Contract for constructing storm sewer on Commerce St. between the H. & T. C. Ry. right-of-way and Race St. has been awarded to the Winslett-Eldridge Co., at $11,941.

San Antonio, Tex.—The City Council Com. on Sewers reported to be considering construction of sanitary lateral sewers in several sections of city. Hans Helland, City Engr.

Afton, Okla.—N. C. Barry, City Clk., writes that the proposed sewer system will include the following: 30,640 lin. ft. 15, 12, 10 and 8-in. sewer pipe; 800 ft. 12, 10 and 8-in. steel pipe and 3000 lin. ft. ¾-in. galv. iron pipe; of this 4280 lin. ft. will be constructed to a depth of 4 ft.; 13,980 ft. 4 to 6 ft. deep, 6730 ft. 6 to 8 ft. deep; 3750 ft. 8 to 10 ft. deep and 235 ft. 10 to 12 ft. deep; also includes 538 Y branches, 52 manholes, 12 manholes and flush tanks combined; 200 cu. yds. concrete and septic tank; total cost $37,000. Engineers, Benham Eng. Co., Oklahoma City.

★**Portland, Ore.**—Contract reported awarded to Wm. Lind for constructing Willow St. extension of E. Stark St. trunk sewer of reinforced concrete pipe at $148,639.

★**Portland, Ore.**—Robt. G. Dieck, Comr. of Pub. Wks., writes that contract has been awarded to Wm. Lind for the construction of Willow and E. 82d St. trunk sewer (bids for which were opened Jan. 11) at the following bid, using reinforced concrete pipe: **Reinforced Concrete Pipe**—4298 lin. ft. 60-in., $3.97; 5151 lin. ft. 54-in., Type A, $3.94; 2466 lin. ft. 54-in., Type B, $3.54; 1686 lin. ft. 42-in., $2.92; 43 lin. ft. 36-in., Type A, $2.83; 2315 lin. ft. 36-in., Type B, $2.57; 1617 lin. ft. 30-in., $2.13; 100 lin. ft. 8-in. drain tile, 40 cts.; 100 lin. ft. 6-in. drain tile, 35 cts. **Pipe Sewer**—248 lin. ft. 24-in., $2; 266 lin. ft. 22-in., $1.80; 306 lin. ft. 20-in., $1.50; 130 lin. ft. 18-in., $1.30; 134 lin. ft. 16-in., $1.20; 218 lin. ft. 14-in., 90 cts.; 138 lin. ft. 12-in., 70 cts.; 68 lin. ft. 10-in., 60 cts.; 1996 8-in., 40 cts.; 6138 lin. ft. 6-in., 30 cts. **Y Branches**—6 24 x 6-in., $8; 7 22 x 6-in., $7.50; 8 20 x 6-in., $6; 1 18 x 8-in., $5.50; 2 16 x 8-in., $4.50; 4 14 x 8-in., $4; 3 12 x 8-in., $3; 2 8 x 6-in., $1.80; 111 6 x 6-in., $1.20; 23 ⅛ bends 6-in., 90 cts.; 9 concrete manholes, $50; 50 concrete manholes, including 5 ft. of sewer, $60; 83 concrete in-

★*Items marked thus give the names of parties awarded contracts.*

lets, $12; 87,497 cu. yds. excav., 81 cts.; 10 cu. yds. concrete 1:2:4, $8; 10 cu. yds. concrete 1:3:5, $7.50; extra vitr. brick, per M ft., $40; 100 lbs. extra steel, 3 cts.; lumber, per M ft., $10; 10 cu. yds. crushed rock, $3; 1 jet chamber, 82d and Glisan Sts., $325; 1 jet chamber, 81st and Stark Sts., $225; 42 deep house connections, $9; 2 special manholes, $100; total $148,639.

★**Bakersfield, Cal.**—Contract for constructing clay pipe sewers in Dists. 22 and 23 has been awarded to Wm. J. Tobin, 735 Filbert St., Oakland, at $8,285 (bids opened Jan. 20).

Oakland, Cal.—City Council reported to have decided to construct about 4 miles of sewer in the Leona Heights Dist.; cost about $16,000.

Ontario, Cal.—Contract will soon be let for constructing concrete and vitr. pipe sewers to cost $55,000. B. B. Mann, City Engr.

★**Moscow, Idaho.**—Contract reported awarded to Witter-Fisher Co., of Moscow, for constructing a 3-mile extension to present sewer system.

★**Regina, Sask.**—Contract for 35,000 sq. ft. corrugated siding and roofing for filter bed at city Sewage Disposal Works has been awarded to Winnipeg Ceiling & Roofing Co., Winnipeg, Man. Contract for steel roof trusses for same building 128 x 168 ft., awarded to Hamilton Bridge Wks., Hamilton, Ont.

Oak Bay, B. C.—This city is reported to be considering construction of sewers, to cost about $30,000.

Vancouver, B. C.—It is reported that the Vancouver & District Joint Sewerage & Drainage Bd. has decided to commence work of constructing Clark Drive sewer as soon as plans are completed. It has not been decided whether work will be done by day labor or contract.

BRIDGES.

Items Arranged Geographically

★**Van Buren, Me.**—Contract for concrete pile foundation for bridge over St. John River, between Van Buren, Me., and St. Leonard, N. B., awarded to MacArthur Concrete Pile & Foundation Co., 11 Pine St., New York. Van Buren Bridge Co., Owners; Cyr Bros. Co., General Contractors, Waterville, Me.; W. J. Wilgus, Consulting Engr., New York, N. Y.

★**Concord, N. H.**—Bids were opened Jan. 23, by City Council for constructing 4 bridges and the following bids have been recommended for award: To Berlin Constr. Co., Berlin, Conn., for Borough bridge at $4,075; Federal Bridge, $20,625, and Sewalls Bridge, $14,318, and to Penn Bridge Co., Beaver Falls, Pa., for Main St. bridge, at $12,900.

Cumberland, R. I.—Citizens voted an additional $20,000 appropriation for constructing bridge over Blackstone River at Broad St., Valley Falls.

★**Ellenville, N. Y.**—Contract for constructing steel highway bridge over Roundout Creek (bids opened Jan. 18 by J. F. Loughran, Co. Supt. Highways, 74 John St.) has been awarded to Lackawanna Bridge Co., Buffalo, at $8,490. Next 3 lowest bids: Penn Bridge Co., Beaver Falls, Pa., $8,687; Berlin Constr. Co., 220 Bway., New York, $8,945; Standard Eng. Co., Toledo, O., $8,998.

Lewiston, N. Y.—U. S. Congress passed bill authorizing Ontario Niagara Connecting Bridge Co. to construct bridge over Niagara River north of Niagara Falls City line.

Asbury Park, N. J.—Construction of a draw bridge over Matawan Creek is contemplated by Monmouth County Bd. Freeholders at Freehold and Jersey Central Traction Co.; cost about $40,000.

Erie, Pa.—Theo. Eichhorn, Dir. of Streets and Pub. Improv. in his annual report recommends construction of a viaduct at East Ave. and a foot bridge over tracks on German St.; also repaving 10th, State, E. and W. 18th Sts.

Bedford City, Va.—Bids desired by County Clerk, Feb. 16, for construction of a steel and concrete bridge 209 ft. long over Elk Creek in Bedford County.

Ft. Monroe, Va.—Bids desired until Mar. 3 by Quartermaster for furnishing material and constructing concrete footbridge across moat here, including changing location of electrical conduit, advertised in Engineering Record.

Lawrenceville, Va. — Bids including plans and specifications will be received until Feb. 19 by County Bd. Superv. (W. T. Sledge, Clk.) for constructing a steel bridge over Meherrin River, about 2 miles south of Lawrenceville.

Elkins, W. Va.—Bids desired until Mar. 1 by County Court (T. Pitt, Clk.) for constructing 7 bridges as follows: Stone gutter bridge, on S. & P. Turnpike, 25 ft. span, 18 ft. roadway; Kings Run Bridge, Beverly and Fairmont Turnpike, 45 ft., 18 ft. roadway; Isner's Run Bridge, Beverly and Fairmont Turnpike 40 ft. span, 18 ft. roadway; Mill Creek Bridge Huttonsville, Helvetia, and Picken's Pike, at Rosencrance's Mill, near town of Mill Creek, 70 ft. span, 14 ft. roadway; Stone House Bridge, across Cheat River, 170 ft. span, 14 ft. roadway; Stalnaker Run Bridge, leading Creek Pike, 20 ft. span, 18 ft. roadway; Bridge over Run near Arthur's Grouch'd, Staunton and Parkersburg Pike, 20 ft. span, 18 ft. roadway. All the above bridges are to be constructed of concrete except the Stone House Bridge, which will be constructed of concrete or steel.

Arcadia, Fla.—See "Paving and Roads."

★**Birmingham, Ala.**—Contract for constructing bridge over Alabama River near Pine Hill for Gulf, Florida & Alabama Ry. Co. reported awarded to American Bridge Co.

Fayetteville, Tenn.—J. E. Hurd, of Oblong, Ill., Ch. Engr. Tennessee & Alabama Railroad Co., writes that it is proposed to construct a 3 span 100 ft. truss bridge on concrete foundation over Elk River; it is also proposed to grade 30 miles of road; work light.

Paducah, Ky.—Congress passed bill authorizing Paducah & Illinois R.R. Co. to construct bridge over Ohio River about 10 miles below Paducah.

Cincinnati, O.—We are informed that detailed plans are now being prepared for the proposed Park Ave. Bridge over Kemper Lane into Eden Park, but funds will probably not be available before Apr. 1; it will be of reinforced concrete, and cost about $100,000. F. S. Krug, Ch. Eng. Bd. Pub. Service.

Bids desired until Feb. 26 by County Comrs., (Albert Reinhardt, Clk.), for constructing 2 concrete bridges, one on Pippin Rd. and one on Owl Creek Rd., both in Colerain Township.

Cleveland, O.—Bids desired until Feb. 23 by Commisisoner of Purchases and Supplies for constructing steel superstructure of east section of Clark Ave. Viaduct, approximately 9000 tons. F. D. Richards, City Bridge Engr.

Bids desired until Feb. 16 same place as above for repairs to the pier protections of various city bridges.

Monticello, Ind.—Comrs. White and Carroll County have approved plans for constructing 4-span iron bridge with wood block floor, length 512 ft. at Springsboro. Monticello, county seat White County.

★**Greenville, Ill.**—Contract for constructing concrete bridge over Little Shoal Creek, near Greenville, awarded by County Supt. Highways and County Supervs. to Conner & Van Dusen, Greenville, at $5,775.

Peoria, Ill.—The proposed bridge to be constructed at S. Adam St. over the railroad tracks will be of steel on concrete pedestals and have 25 spans; total length, 1600 ft. roadway 24 ft. wide; cost, $109,000. For further information address Hedrick & Cochrane, Consulting Engrs., 1118 McGee St., Kansas City, Mo.

Knoxville, Ia.—Bids desired until Feb. 23 by J. D. Schlotterback, Co. Aud., for constructing bridges as follows: 3 pony truss bridges, 60 x 16 ft., 70 x 16 ft., and 70 x 18 ft. cost, $3,796, $4,490 and $5,370, respectively; 2 through truss bridges, each 120 x 18 ft., cost, $7,891 and $8,395 respectively; 4 I-beam span bridges, 28 x 16 ft. 32 x 16 ft., 20 x 20 ft. and 28 x 16 ft., cost, $1,681, $1,959, $1,937 and $1,240 respectively; also constructing a large number of culverts.

★**Spencer, Ia.**—Contract has been awarded by Clay County Comrs. to the Thor Constr. Co., Cedar Falls, for constructing reinforced concrete bridge of five 70-ft. concrete spans, at $37,600.

Central City, Neb.—Bids reported desired until Feb. 9 by W. H. Riggs, Co. Clk., for bridge construction during 1915.

Hastings, Neb.—C. H. Judson, Co. Clk., writes that all bids opened Jan. 14 for constructing bridges during the year 1915 have been rejected, and the county will build its own bridges.

Superior, Neb.—Bids desired until Mar. 3 at County Clerk's office, Nelson, for constructing bridge across Republican River, near Superior, reinforced concrete structure, of balanced arch type, composed of 2 50-ft., 2 55-ft. and a 60-ft. arch, 16-ft. roadway, with concrete piers and abutments resting on wood piles. Bids will also be received for a yardage basis for making fills and roadway over bridge, there being approximately 2500 cu. yds. fill and 420 cu. yds. surfacing.

Billings, Mont.—About $77,000 bonds have been sold for constructing 2 bridges over Yellowstone River. Contracts for construction are about to be let by County Comrs.

St. Louis, Mo.—The Missouri Pacific R. R. Co. (J. R. Stephens, Ch. Engr., St. Louis), is reported to have decided to construct at once a viaduct at Chouteau Ave., between Grand and Vandeventer Aves.; cost about $315,000.

Houston, Tex.—Bids desired until Feb. 10 for constructing Milam St. Bridge. Estimated cost $37,000. E. E. Sands, City Engr.

San Antonio, Tex.—Lowest bid opened by County Comrs. for constructing Applewhite-Medina Bridge submitted by De Puy & Ranney at $5.377. and Topeka Bridge & Iron Co., Topeka, Kan., at $5,400.

Montesano, Wash.—County Comrs. contemplate constructing bridge on Wishkah Rd. and 2 across west fork of Wishkah River, also one across Sarsop River.

Visalia, Cal.—See "Paving and Roadmaking."

★**Twin Falls, Idaho.**—Contract for constructing bridge over Snake River near Murtaugh has been awarded to J. H. Forbes & Co., Caldwell, Idaho, at $5,946.

Ottawa, Ont.—Bids desired until Feb. 18 by Chairman and Members Bd. of Control, for handrailing and lighting posts for Billings Bridge. F. C. Askwith, Acting City Engr.

Siam.—Bids desired by Siamese Royal Ry. Dept. for trucks, frames and fittings for 20 railroad car bodies and also for one steel bridge, approximately 15 ft. wide, 120-ft. span, advertised in Engineering Record. Specifications and drawings may be had from the Siamese Legation, Washington, D. C.

PAVING AND ROADS.

Items Arranged Geographically

Fall River, Mass.—See "Sewerage and Sewage Disposal."

Lee, Mass.—See "Bridges."

Hartford, Conn.—It is proposed to pave Frankfort St., about 10,000 sq. yds., with waterbound macadam and 6200 lin. ft. curb; also Wethersfield Ave., 16,850 sq. yds. sheet asphalt; Turnbull St., 1200 sq. yds. granite block; Village St., 2000 sq. yds. sheet asphalt. Street Railway Co. will lay 8600 sq. yds. sheet asphalt on Wethersfield Ave. R. N. Clark, City Engr.

New Haven, Conn.—See "Sewerage and Sewage Disposal."

Brooklyn, N. Y.—Lowest bid opened Jan. 27 for regulating and repaving with permanent Grade 1 granite pavt. on a 6-in. concrete foundation Hudson Ave., from Nassau St. to DeKalb Ave., submitted by W. J. Scanlon Co., 1 Union Sq., New York, as follows: 1600 lin. ft. old curb reset in concrete, 60 cts.; 3500 lin. ft. new curb set in concrete, 90 cts.; 200 lin. ft. granite heading stones set in concrete, 75 cts.; 790 cu. yds. concrete outside railroad area, 20 cts.; 5 cu. yds. concrete within railroad area, $4 25; 865 sq. yds. old concrete foundation removed, 1 ct.; 7855 sq. yds. Grade 1 granite pavt. with joint fill of coal tar, pitch and sand, outside railroad area (1 yr. maintenance), $2.51; 30 sq. yds. Grade 1 granite pavt. with joint fill of coal tar and pitch and sand, within railroad area (no maintenance), $3.26; 95 sq. yds. adjacent pavt. relaid, $1; 10 new covers and heads for sewer manholes, $12; total $27.819. Next 3 lowest bids: Chas. A. Myers Contr. Co., 1371 Nostrand Ave., Brooklyn, $27,881; Norton & Gorman Contr. Co., 301 Douglass St., Brooklyn, $28,446; M. F. Hickey, 6th St. and 2d Ave., Brooklyn, $29,083.

Buffalo, N. Y.—Bids desired until Feb. 11 by Francis G. Ward, Comr. Pub. Wks., for repaving portions of Ot's Pl., Delavan Ave., Laurel, Chicago, Dodge and S. Cedar Sts.

Forestville, N. Y.—Chas. McNeal, Village Clk., writes that the bonds recently voted are to be used for paving with brick about one-half mile, to cost $13,000; advertised in Engineering Record.

★**Lockport, N. Y.**—Contract awarded by County Bd. of Supervisors (F. H. Krull, Clk.) to F. J. Mumm Contr. Co., Inc., Buffalo, for constructing Lewistown Rd. or Chestnut Ridge County Rd., town of Royalton, 2.28 miles at $26,257, and Quaker Rd., so-called County Rd. No. 15, towns of Hartland and Somerset, a total distance of 7.458 miles at $65,259.

Rochester, N. Y.—Common Council contemplates paving with asphalt Syke St. and Culver Rd.; cost about $80,000.

Council has passed first ordinance for new asphalt pavement and cement walks in Winton Ave., from old city line to the new city line, to cost $70,000; also Syke St. paving to cost $12 000.

Bridgeton, N. J.—Cumberland County Bd. Freeholders voted $24,000 to build state road from Carlls Corner through Vineland to Atlantic County Line; also one from Millville to Mauricetown Bridge.

Erie, Pa.—See "Bridges."

Ellicott City, Md.—Bids reported desired until Feb. 9 by County Comrs., Ellicott City (M. J. Sullivan, Clk.), for constructing 1.74 miles State highway in 4th Election Dist., known as Woodbine-Lisbon Rd.

★**Linwood, Md.**—Contract for constructing 3.66 miles macadam road, from Mt. Holly to Linwood, awarded by County Supervisors at Cambridge to Luck Constr. Co., Roanoke, at $36,700.

Maryland.—Bids desired until Feb. 16 by State Roads Comn., Baltimore (Wm. L. Marcy, Secy.), for constructing 5 sections of State highway aggregating 12.52 miles in length as follows:

Contr. A-B-6: Anne Arundel Co., Annapolis Boule., concrete road about 3.76 miles.

Contr. A-11: Allegany Co., National Pike, resurfacing, about 1.74 miles in length.

Cntr. Bc-18A: Baltimore City, Cathedral St., sheet asphalt, about .47 mile in length.

Contr. Ch.11: Charles Co., La Plata to near Ripley, 4 in. gravel surfacing, about 5.70 miles.

Contr. G-8: Garrett Co., resurfacing road through Grantsville, about .85 mile in length.

Pulaski, Va.—Paving bonds amounting to $80,000 have been sold.

Wilmington, N. C.—Bids desired until Feb. 27 by L. W. Moore, County Comr., for constructing approximately 7½ miles clay gravel road, 10 ft. wide and spread 8 in. thick. J. L. Becton, Engr., Wilmington.

Arcadia, Fla.—Bids desired until Mar. 2 by County Commissioners, for $210,000 Special Road and Bridge Dist. No. 1 bonds, issued for purpose of grading, draining and surfacing with marl, rock asphalt-sand, oil-sand, etc., 35.5 miles highway; grading, draining and hard-surfacing with brick, concrete asphalt, etc., 11.25 miles highway; grading and draining 45 miles highway; constructing 6 steel or reinforced concrete bridges; substitution of concrete or metal for all wooden culverts. H. E. Anschutz, Highway Engr., Arcadia.

Clearwater, Fla.—J. N. Drew, City Engr., writes that bids are desired about Feb. 17 for Ft. Harrison and Drew Aves., about 20,000 sq. yds., with brick on sand foundation, concrete curb and gutter.

Manatee, Fla.—See "Water Works."

Alexandria, La. — J. P. Turregans, Chmn. County Finance Com., writes that bids for the purchase of the $100,000 bonds for gravel roads will be opened Mar. 29 for construction work on roads about Apr. 15.

Columbus, Miss.—The Goods Roads Commissioners of Lowndes County have engaged Gus. Hauser, of Columbus, as engineer in charge of road construction.

★**Chattanooga, Tenn.**—Contract for paving with bituminous concrete base and asphalt macadam surface Main Ave. in North Chattanooga, has been awarded by Hamilton County Road Comn. to Noll Constr. Co., Chattanooga, at $12,513.

Jellico, Tenn.—Bids desired until Mar. 2 by A. B. Mahan, Secy. Co. Road Comn., for $150,000 county road bonds, advertised in Engineering Record.

Louisville, Ky.—Following lowest bids opened by Bd. Pub. Wks. for paving Madison St. with bituminous concrete: American Standard Asphalt Co., Louisville, 4 sections street at $1.67 per sq. yd., and Southern Asphaltoiline Co., 3 sections at $1.68.

★**Alexandria, Va.**—Following are unit prices of 4 lowest bids opened Jan. 22 by Dept. Pub. Roads, U. S., Dept. of Agriculture, Washington, D. C., for constructing an experimental road on Mt. Vernon Ave., in Alexandria County, Va., from Military Rd., near Arlington Cemetery, approximately 4.5 miles, to corporate limits of Alexandria: (a) Wm. P McDonald Constr. Co., New York, $54,174 (recommended for award); (b) Thos. Mullan, Baltimore, Md., $55,262; (c) Wm. C. Evans, Ambler, Pa., $55,682; (d) Juniata Co., Philadelphia, Pa., $56,330.

	(a*)	(b)	(c)	(d)
5 acres clearing and grubbing	$100.00	$200.00	$100.00	$100.00
28,500 cu. yds. earth excav.	.35	.36	.38	.42
48 lin. ft. cor. metal pipe culvert, 15 in. (to place).	.20	.50	.30	.40
130 lin. ft. cor. metal pipe culvert, 18 in. (to place).	.25	.60	.40	.50
138 lin. ft. cor. metal pipe culvert, 24 in. (to place).	.30	.70	.45	.70
40 lin. ft. cast-iron pipe culvert, 12 in. (to place).	.30	.65	.50	.60
36 lin. ft. cast-iron pipe culvert, 16 in. (to place).	.40	.75	.60	.95
30 lin. ft. cast-iron pipe culvert, 18 in. (to place).	.39	.85	.75	1.25
238.3 cu. yds. concrete, Class B	10.00	9.00	9.00	10.00
97.3 cu. yds. concrete, Class A	12.00	10.00	9.50	12.00
91 cu. yds. concrete, Class AA	9.00	11.00	8.00	8.00
4.5 cu. yds. concrete, Class AAA	25.00	25.00	35.00	35.00
10,000 lbs. steel reinforcing bars	.04	.015	.04	.05
58 foundation piles	12.00	15.00	11.00	10.00
48,320 sq. yds. shaping sub-grade and shoulders	.025	.07	.02	.03
12,944 sq. yds. scarifying and reshaping	.035	.15	.03	.07
100 tons foundation course stone, trap	2.75	2.35	2.00	2.60
913 tons foundation course stone, gneiss	3.00	2.40	2.25	2.90
9,000 tons foundation course, gravel	.95	.70	.74	.50
600 tons gravel shoulders, rolled in place	.95	1.00	.94	.80
3,556 sq. yds. wearing course—penetration, sandstone	.57	.50	.70	.48
3,397 sq. yds. wearing course—penetration, granite	.56	.45	.73	.57
3,556 sq. yds. wearing course—penetration, trap	.48	.47	.50	.46
3,042 sq. yds. wearing course—penetration, gneiss	.45	.47	.60	.52
3,716 sq. yds. wearing course—mixing, sandstone	.66	.55	.85	.62
3,456 sq. yds. wearing course—mixing, granite	.65	.54	.80	.76
3,556 sq. yds. wearing course—mixing, trap	.58	.53	.62	.61
3,509 sq. yds. wearing course—mixing, gneiss	.58	.53	.73	.67
12,831 sq. yds. wearing course—mixing, gravel	.34	.36	.40	.44
60 concrete bound stones	1.00	8.00	3.00	3.50
2,800 lin. ft. reinforced concrete guard rail	1.00	1.00	.85	1.40
2,800 lin. ft. wooden guard rail	30.00	.50	.35	.45

★*Items marked thus give the names of parties awarded contracts.*

Newport, Ky.—See "Water Works

★**Ashtabula, O.**—Bids were opened Jan. 23 by M. H. Turner, Dir. Pub. Service, for paving S. Ridge Rd. with shale block on a concrete foundation, requiring 13,000 cu. yds. excav. and 15,800 sq. yds. pavt., and contract has been awarded to T. P. Fitzgerald, 304 Main St., Ashtabula. Estimated cost $44,870.

Berlin Heights, O.—Bids desired until Feb. 20 by T. M. Elson, Clk. Berlin Township, Berlin Heights, for $30,000 road improvement bonds.

Bexley (P. O. Columbus), O.—Citizens voted $35,000 bonds for constructing about 5 miles streets.

Canton, O.—Bids desired until Feb. 24 by County Commissioners for furnishing material and improving the Alliance-Bolton, Massillon-Millersburg, Magnolia-Sparta and Navarre-Justus roads, a total length of about 10½ miles, requiring in all 64,857 cu. yds. excav., 58,885 sq. yds bituminous macadam pavement, 31,410 sq. yds. wire cut or repressed block, tar or grout filler, 37,692 lin. ft. stone or concrete curb.

Cleveland, O.—Bids desired until Feb. 16 by Commissioner Purchases and Supplies, for furnishing and delivering creosoted wood paving blocks and floor planking.

★Contract for grading and improving East Boule. awarded by Bd. Control to Walsh Constr. Co., Davenport, Ia., at $9,500.

★**Mt. Gilead, O.**—Contracts for paving awarded by Comrs. Crawford, Morrow and Richland Counties, as follows: Galion-Bloominggrove Rd., 6½ miles long, and Hershmer Rd., 2¼ miles, to Sausley & Britton, Ada, at $42,024 and $11,142 respectively.

★Contract awarded by County Comrs. Jan. 28 for macadamizing two roads as follows: To J. D. Gillespie, La Rue, at $10,455, for Mozier-Gruber Rd. about 2 miles, and to Gledhill & Rinehart, Galion, at $2,790, for Hunter Rd., about ¾ mile. C. O. Higgins, Co. Aud.

Navarre, O.—Village Council has engaged an engineer to prepare plans and specifications for paving with brick Main and Canal Sts. Contract to be let early in the spring. E. H. Garver, Village Clk.

Paulding, O.—Bids desired until Feb. 16 at office of Edw. McGaharan, Co. Aud., for grading, draining, culverting, macadamizing, rolling and flooding the following pikes: Arena Pike, Paulding Township, 16,132 ft. in length; Burroughs Pike, Paulding and Crane Townships, 10,836 ft.; Coplin Pike, Harrison and Carrvall townships, 17,900 ft.; Kraft Pike, Paulding and Harrison townships, 15,918 ft.; Stanley Pike, Washington Township, 10,775 ft.

★**Troy, O.**—Contract awarded by Bd. Pub. Service, Jan. 27, to J. M. Hennessey & Bro., Troy, for paving and appurtenances at following bids: 638 ft. 12-in. sewer pipe laid complete, 45 cts.; 320 ft. 15-in., 60 cts.; 572 ft. 18-in., 70 cts.; 490 ft. 20-in., 80 cts.; 21 c.-i. inlets set complete, each $9; 4 manholes, each $25; 260 ft. header curb, 25 cts.; 33,440 ft. combined curb and gutter set, 40 cts.; 3 c.-i. inlets to reset, 40 cts.; 5193 sq. yds. bituminous macadam pavement, laid complete (6 in. concrete base and excav. included), Montezuma asphalt and lime stone, $1.24; total, $9,449. M. A. Gantz, City Engr.

★**Indianapolis, Ind.**—Contract for paving Senate Ave. with asphalt awarded by Bd. Pub. Wks. to American Constr. Co., St. Louis, Mo., at about $13,000.

Following bids opened by Bd. Pub. Wks. for furnishing 500,000 gal. oil for unimproved streets of city (price given per gal.): Zearing Contrs. Supply Co., 3.49 cts.; Standard Oil Co., 3.61 cts.; Barber Asphalt Co., 9.8 cts. and 6.8 cts., according to quality; Great Western Oil Co., 3.25 cts.; Indiana Refining Co., 2.74 cts. and John Baker, Jr., 3⅓ cts.

New Albany, Ind.—Bids desired until Feb. 10 by County Commissioners, for constructing 3 roads in New Albany Township, Grant Line Rd., 13,509 ft., Slate Run Rd., 7996 ft., and Green Valley Rd., 7957 ft.

Birmingham, Mich.—Bids reported desired until Feb. 10 by City Clerk for 43,000 sq. yds. pavement and 18,000 ft. stone and cement curb; cost $15,750. Smith & Boulay, Engrs., The Nasby, Toledo, O.

Detroit, Mich.—The annual estimate for the Dept. of Pub. Wks. include the following: Creosote block resurfacing, $800,050; brick resurfacing, $173,410; stone, $133,650, and asphalt, $1,026,755.

Detroit, Mich.—Tentative plans prepared by A. D. Taylor, Cleveland, O., and submitted to City Plan Improvement Comn. for river side boule to extend from Owen Park to Gaulkler Point.

Dundee, Mich.—Bids desired until Feb. 23 by Bd. Village Trus. (Otto C. Spohr, Clk.), for improving Monroe St., requiring 6700 sq. yds. paving and 2700 cu. yds. grading. Geo. Champe, Engr., Toledo.

Flint, Mich.—City Council contemplates paving about 110,000 sq. yds.

★**Pontiac, Mich.**—Contract for constructing 4¼ miles concrete road on Woodward Ave., awarded by Oakland County Rd. Comrs. to R. D. Baker Co., Detroit, at $59,674.

Port Huron, Mich.—Bids reported desired until Feb. 11 by Albert P. Ryan, Clk. Bd. Road Comrs., Port Huron, Mich. (not Ohio, as previously stated) for constructing 3½ miles Class E macadam road.

★**Royal Oak, Mich.**—Contract was awarded Jan. 23 for constructing 4¼ miles concrete road on Woodward Ave. to R. D. Baker, of Detroit, at $59,674. Contract not signed until Village of Birmingham lets contract for 1 mile through its village; the Royal Oak work being a conditional job dependable upon the Birmingham paving. M. De Glopper, Co. Engr.

Saginaw, Mich.—Bids reported desired until Feb. 10 by John W. Ederer, County Road Comr., for furnishing gravel, stone and cement and all materials used in county road construction.

Alton, Ill.—Plans being prepared by J. E. Schwaab, City Engr., for paving main streets of Upper Alton, estimated cost about $300,000.

★**Belleville, Ill.** — Contract reported awarded by Bd. Local Improv. for paving in Spring St. paving district to Hoeffken Bros., Belleville, at $20,289.

★**Champaign, Ill.**—Contract for paving W. White and W. Healy Sts. awarded by Bd. Local Improvements to Stipes & Pilcher, Champaign, at about $28,136 and $26,066 respectively.

Rock Island, Ill.—Bids desired Feb. 11 for brick paving as follows: 18th Ave., cost, $28,908; Highland Park, $9,300, and 28th St., $17,401; also cement walks on 9th Ave., also water pipe in Smalley's Addition to cost $6,500. W. Treichler, City Engr.

Beloit, Wis.—Council on Jan. 26 ordered Bd. Pub. Wks. to prepare specifications for creosoted block, vitr. block, sheet asphalt, asphaltic concrete and reinforced concrete wearing surface, all on concrete foundations, about 12,000 sq. yds.

Duluth, Wis.—Plans have been prepared for paving Commonwealth Ave. at an estimated cost of $53,484 for concrete and $57,309 for brick; also for paving Minnesota Ave. with concrete at an estimated cost of $85,200. John Wilson, City Engr.

Belle Plaine, Ia.—Bids desired by C. E. Greenlee, City Clerk, until Feb. 16 for 32,500 sq. yds. of cement concrete or asphaltic concrete pavt. and 23,000 ft. cement curb. Iowa Eng. Co., Engrs., Clinton.

Emmetsburg, Ia.—Bids will be opened Feb. 15 by City Clk. for constructing approximately 40,000 sq. yd. of pavement, either bitulithic, sarcolithic, mineral rubber, asphaltic concrete, vitr. brick, creosoted wood block or Portland cement concrete.

Tama, Ia.—Plans being prepared by Ætna Eng. Bureau, 17 N. La Salle St., Chicago, Ill., for 40,000 sq. yds. paving.

Fargo, N. D.—Frank L. Anders, City Engr., writes that work will begin about Apr. 15 on the following paving: Bway. between Northern Pacific and Great Northern track, bids to be received on brick, bitulithic and creosote block, 16,000 sq. yd.; 1st Ave. N. of 5th St. with one of four kinds of pavement to be selected by property owners, brick, creosoted block, bitulithic and Portland cement concrete, about 3000 sq. yd.; also about 35,000 sq. yd. of new paving lying in 1st, 2d, 3d paving districts, bids to be received on four classes of paving on this contract.

Galveston, Tex.—Following 3 lowest bids opened by City Comrs. for paving with vitr. brick on concrete base 21,300 sq. yds. on Ave. H or part 29th St.: P. J. Vautrin, Galveston, $52,421 General Constr. Co., Ft. Worth, $53,348, and Freund & Quay, Galveston, $53,754.

★**Sherman, Tex.**—Contract for paving with gravel, concrete base and asphalt, 4 miles street, W. and E. Lamar Sts., has been awarded to Levy & Levy, Muskogee, Okla.

Pueblo, Colo.—D. P. Gaymon, City Engr., writes that the bids to be opened about Feb. 15 for paving Mineral Palace Paving Dist. call for gravel-macadam, combined concrete curb and gutter; total cost $180,000.

Seattle, Wash.—Plans have been approved by Bd. Pub. Wks. for paving Railroad Ave. with brick and asphalt, and grading and filling Alki Ave., cost $120,000 and $37,000 respectively.

Spokane, Wash.—Bids will be received early in Feb. by County Comrs. for improving 11½ miles Deer Park and 4 miles Waverly Highway, cost about $150,000.

Pendleton, Ore.—County Comrs. considering constructing 18 miles highway from German Hall to Springs Landing; cost about $15,000.

★**Portland, Ore.**—Contract for laying asphaltic concrete on E. 45th St. awarded to Montague-O'Reilly Co., at $9,552.

Hanford, Cal.—County Supervs. voted $70,000 toward constructing state highway and constructing concrete bridges over streams on proposed route.

★**Los Angeles, Cal.**—Contract for improving Mission Rd. awarded by Bd. Public Works to A. L. McCray at $56,547.

★Contract for paving with asphalt W. 1st St., about 118,162 sq. ft., has been awarded to Fairchild Gilmore-Wilton Co., Pacific Electric Bldg., at $32,002.

Construction of highway to Yuma, Ariz., via Colton and Brawley, is in contemplation. A. Brock, Los Angeles, is said to be interested.

Napa, Cal.—About $125,000 bonds have been sold by Bd. County Supervs.

Porterville, Cal.—Plans completed by City Engineer for 33 blocks of asphalt and concrete pavements.

San Francisco, Cal.—Preliminary plans prepared by City Engineer for extending Market St.

Ventura, Cal.—Election will be held in spring to vote about $900,000 bonds for county highways.

Visalia, Cal.—About $600,000 is to be spent by Tulare County for constructing highways and bridges.

★**Kerrisdale, B. C.**—G. G. Heighway, Municipal Clk., writes that contract for paving University Ave. has been awarded as follows: for portion up to 4½ per cent grade, the pavement with a 5½ in. concrete base and a bituminous wearing surface has been chosen, and contract awarded to Ledingham & Cooper; for portion exceeding 4½ per cent grade a concrete pavement has been selected with the view of ultimately using brick for a wearing surface and this contract has been awarded to The Cotton Co., Ltd.

Victoria, B. C.—About $300,000 is to be spent by city for paving.

STREET CLEANING AND GARBAGE DISPOSAL.

Items Arranged Geographically

Manchester, N. H.—The Council has adopted the report of Com. on Streets and Sewers, which recommends an appropriation of $150,000 for purchase of an incinerator.

Long Island City, L. I., N. Y.—Lowest bid opened Jan. 29 by Borough President for the general construction of destructor plant at Flushing and Metropolitan Aves., Ridgewood, Boro. Queens, was submitted by McHarg-Barton Co., 171 Madison Ave., New York, at $72,400.

Next 3 lowest bidders: Kelly & Kelley, Inc., Queensboro Bridge Plaza, Long Island City, $97,800; North Eastern Constr. Co., 225 5th Ave., New York, $98,000; Marble Arch Co., 216th St. and Bway., New York, $104,000.

Dayton, O.—Bids desired until Feb. 9 by Hugh Wall, City Accountant, for $45,000 bonds, issued for purpose of completing and equipping the garbage reduction plant.

Bay City, Mich.—The City Council is reported to be considering proposition of Thos. Craney to construct garbage disposal plant.

Rock Island, Ill.—The City Council about to let contract for construction of an incinerator plant.

Fargo, N. D.—Prof. E. F. Ladd, of the Agricultural College, is chairman of a committee appointed to investigate and report to Commercial Club as to advisability of erecting some form of municipal destroyer or incinerator. Frank L. Anders, City Engr.

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Items Arranged Geographically

Concrete Dam—Bangor, Me.—Press reports state that the Great Northern Paper Co. will construct a concrete dam at the head of Ripogenus gorge on west branch of Penobscot River. Hartly S. Ferguson is engineer in charge of the work.

Gate Houses for Canal—Buffalo, N. Y.—Bids desired until Feb. 20 by Col. J. G. Warren, Corps Engrs., U. S. A., Federal Bldg., Buffalo, for constructing 6 gate houses and a storehouse at U. S. Ship Canal lock, Black Rock Harbor, Buffalo. Estimated cost $50,000.

Dredging—New York, N. Y.—Bids were opened by Col. W. M. Black, U. S. Engrs. Office, Jan. 22, and lowest bid was submitted by Morris & Cummings Dredging Co., 17 State St., New York, at the following bid: For all material except broken rock and boulders, 10.83 cts. per cu. yd.; broken rock and boulders ½ to 3 cu. yd. in size, per cu. yd., $6; broken rock and boulders over 3 cu. yd. in size, $10; total, $65,530. Next 3 lowest bids: R. G. Packard Co., Bayonne, N. J., $73,990; Coastwise Dredging Co., Norfolk, Va., $83,950; P. Sanford Ross, Inc., Jersey City, N. J., $84,550.

Dredging—New York, N. Y.—Bids desired until Feb. 19 by Col. Fredk. V. Abbot, Corps Engrs., U. S. A., New York, for dredging in Woodbridge Creek, Raritan Bay, and Shrewsbury River, N. J., advertised in Engineering Record.

Dredging—Port Chester, N. Y.—Bids desired until Feb. 23 by Col. W. M. Black, Corps Engrs., U. S. A., New York, N. Y., for dredging in Port Chester Harbor, N. Y., advertised in Engineering Record.

★**Bulkhead, etc.—Long Branch, N. J.**—Contract was awarded on bids opened Jan. 23, by City Comrs. for repairing and rebuilding bulkhead, jetties, cribbing and roadway along ocean front, to Thos. Proctor, of Long Branch, at $28,246, which calls for wood jetties and wooden cribbing with stone fill. Other bids on this proposition were: McHarg-Barton Co., New York, $31,433, and B. R. Simpson, Elizabeth, $55,560.

★**Dredging—Baltimore, Md.** — Contract has been awarded by Bd. of Awards to the Coastwise Dredging Co., of Norfolk, Va., for dredging main channel of Lazaretto Light to the piers of transatlantic liners, about 2,500,000 cu. yds., at 6.9 cts. per cu. yd. Total, $172,500, to be completed 412 days. (Bids opened Jan. 20.)

Drainage—Commerce, Ga.—Civil Engr. J. G. Foster, G. G. Strange and W. M. Thomas, the Bd. of Reviewers for the Grove River Drainage Dist., are reported to have located a route for ditch, and are making estimates of cost, etc. The proposed ditch will be 6 miles long and will drain an average of 140 acres to the mile.

Stone—Savannah, Ga.—Bids desired until Feb. 24 by Col. W. C. Langfitt, Corps Engrs., U. S. A., Savannah, for furnishing and placing stone for raising low places in jetty at Savannah Harbor, Ga., advertised in Engineering Record.

Drain—Parish, Fla.—Chas. S. Hill, of Palmetto, will complete surveys about May 15 for construction of Gamble Creek ditch; to cost about $125,000.

Drainage Bonds—Pinellas Park, Fla.—Bids desired until Feb. 4 by P. J. McDevitt, Secy., Co. Bd. Superv., for $108,000 drainage bonds.

★**Levee Work — Memphis, Tenn.**—Maj. E. M. Markham, Corps Engrs., U. S. A., writes following is the official list of awards on bids opened Dec. 28 for levee work: Upper St. Francis Levee Dist., 100,000 and 90,000 cu. yds., to L. T. Callahan, Fulton, Ky., at 14.75 cts., and 12.75 cts. per cu. yd.; total $26,225; Lower St. Francis Levee Dist., 200,000 cu. yds., to T. C. Wood, Bruin, at 15 cts. per cu. yd., and White River Levee Dist., 120,000 cu. yds., to F. L. Carter, of Marvell, Ark., at 16.45 cts. per cu. yd.; total $19,740.

Lock Gates—Louisville, Ky.—Bids desired until Feb. 25 by Maj. J. C. Oakes, Corps Engrs., U. S. A., Louisville, for furnishing and erecting 3 mitering lock gates of 2 leaves each for Lock No. 1, Ohio River, advertised in Engineering Record.

Steel Fuel Flats — Cincinnati, O.—Bids desired until Mar. 2 by Lieut.-Col. H. Jervey, Corps Engrs., U. S. A., Cincinnati, O., for constructing and delivering 2 steel fuel flats No. 10 and 19 and one steel barge No. 15, advertised in Engineering Record.

Towboats—Cincinnati, O.—Bids desired until Feb. 26 by Lieut.-Col. H. Jervey, Corps Engrs., U. S. A., for constructing and delivering two steel hull sternwheel towboats "Cayuga" and "Ottawa," advertised in Engineering Record.

Dredging—Toledo, O.—Bids desired until Feb. 25 by Maj. P. S. Bond, Corps Engrs., U. S. A., Cleveland, for dredging Toledo Harbor, O., advertised in Engineering Record.

★**Pier—Michigan City, Ind.**—Contract for reconstructing with piles and timber part of the east pier at Michigan City Harbor, has been awarded to Burk, Smith & Nelson, of Muskegon, Mich., at $25,279. Unit prices in Engineering Record of Jan. 30.

★**Ditch — Warsaw, Ind.**—Contracts for construction of the Mary White ditch, 9 miles long, reported awarded as follows: To W. G. Dillingham, Warsaw, for dredge work, at $4,500, and to Walter Kline, of Warsaw, for tile work at $5,836.

Drain Tile—Saginaw, Mich.—Bids dedesired until Feb. 9 by Robt. F. Johnson, Comr. Light, Water and Sewers for furnishing 3 to 6 in. vitr. salt-glazed No. 1 standard drain tile or Portland cement concrete drain tile.

State Canal Work, Contract 28—Albany, N. Y.—Following are bids opened Feb. 2 by State Supt. Pub. Wks., Albany, for Terminal Contract 28, constructing a harbor, dock wall and 2 breakwaters on Oneida Lake at Cleveland, N. Y.: (a) Engineer's estimate, $34,575; (b) Clarence E. Greiner, The Hampton, Albany, $30,995; (c) Henry P. Burgard, Fulton, N. Y., $31,084; (d) Barrally & Ingersoll, Rochester, $32,332; Eastern Constr. Co., Inc., 122 N. Genesee St., Utica, $35,905; C. R. Simpson, 170 Bway., New York, $36,805; John F. Dolan Contr. Co., 50 Church St., New York, $37,675.

Unit prices of a, b, c and d:

	(a)	(b)	(c)	(d)
31,000 cu. yds. excav.	$0.50	$0.45	$0.39	$0.40
28 M ft. sawed lumber	50.00	50.00	60.00	50.00
48,000 lin. ft. round timber	.18	.16	.16	.20
230 cu. yds. second-class concrete	8.00	11.00	9.00	8.50
1,230 cu. yds. stone filling	1.50	1.00	1.80	1.75
1,050 cu. yds. second-class riprap	4.50	3.50	4.50	4.00
1,500 lbs. iron castings—plain	.05	.06	.05	.05
550 cu. yds. gravel surfacing	1.00	.80	1.00	1.00

★*Items marked thus give the names of parties awarded contracts.*

★**Dry Dock—Chicago, Ill.**—Contract reported awarded by the American Shipbuilding Co., of Cleveland, O., to the Great Lakes Dredge & Dock Co., Chicago, for building a 700-ft. drydock, 102 ft. wide, at South Chicago. Cost, approximately $325,000.

Levee—Peoria, Ill.—Petition for organization of the Tri-City Drainage Dist. will sonn be filed with the County Comrs. at Peoria. Project involves 3000 acres of land and will necessitate about 8 miles of levee work.

Ditches—Clintonville, Wis.—Bids desired until Feb. 12 by O. R. Schwantes, Clk. Willow Valley Drainage Comrs., for constructing main ditches in Willow Valley Drainage Dist., in all about 37,315 cu. yds. excavation. N. H. Smith, Engr., 268 Forest Ave., Oshkosh.

Drainage—Ft. Madison, Ia.—The Lee County Bd. of Supervisors, in session at Ft. Madison, has signed contracts providing for a preliminary survey of the Green Bay Farm land territory, preparatory to establishment of a drainage district enclosing lands liable to inundation by high stage of water created by the Keokuk dam. The petition for the surveys was presented by A. E. Johnstone, and N. D. Trautler, of Keokuk, and Edmund T. Perkins, of Chicago, Ill., will have charge of survey.

Creek Improvement — Duluth, Minn.—Plans have been prepared for changing course of Mission Creek, including construction of two 12-ft. and one 18-ft. reinforced concrete bridges. Estimated cost $25,772. John Wilson, City Engr.

Ditch—Olivia, Minn.—Bids reported desired until Feb. 16 by County Auditor for constructing County Ditch No. 57 to cost $13,000.

Ditch — Ortonville, Minn.—Bids desired until Feb. 17 by A. G. Shogren, Co. Aud., for constructing Ditch 41, requiring 43,000 cu. yds. excavation with plow and scraper and dredge; also one 14-ft. and one 12-ft. span concrete and steel bridge, etc. Estimated total cost, $8,733. M. E. Chamberlain, Engr., Montevideo.

Ditch—Slayton, Minn.—Bids desired until Feb. 23 by E. V. O'Brien, Co. Aud., for constructing Judicial Ditch No. 3; approximate length of main ditch, 24,600 ft.; average depth 8 ft.; 113 branches aggregating in length 181,600 ft.; tile, 6 to 26 in.; 6400 ft. open ditch; 22,272 cu. yds. to be removed. Estimated total cost, $72,882.

★**Drainage—Stillwater, Minn.**—Contract has been awarded to Shultz & Beach, of Clarion, Ia., for constructing Ditch 4, at $16,495 (bids opened Jan. 29). N. A. Nelson, Co. Aud.

Ditch—Walker, Minn.—Bids desired until Feb. 15 by C. D. Bacon, Auditor of Cass Co., at Walker, for constructing Judicial Ditch No. 2, located in Hubbard, Cass and Wadena counties, requiring 290,961 cu. yds. excavation, etc. Total estimated cost, $33,039. E. V. Willard, Engr., Old Capitol Bldg., St. Paul.

Drainage Work—Kansas City, Kan.—Bids desired until Feb. 26 by Directors Kaw Valley Drainage Dist., Kansas City, for drainage work in said dist., advertised in Engineering Record. P. J. Broll, Secy.

Ditch—Brookings, S. D.—Homer M. Derr, State Engr., Pierre, has completed his report on straightening Sioux River, west of Brookings, and declares the project feasible; cost $87,608 to $105,130, according to length and depth of ditch.

Channels for Drainage Work—Edina, Mo.—Bids desired until Feb. 18 by Supervisors of Fabius River Drainage Dist. at office of F. H. McCullough, Edina, Mo., for constructing channels for the Fabius River Drainage Dist. No. 3, Scotland, Knox, Clark and Lewis Counties, advertised in Engineering Record. Work includes about 500,000 cu. yd. of channel excav. Harman Eng. Co., 144 Fredonia Ave., Peoria, Engrs.

Dredge Tender, Galveston, Tex.—Bids desired until Feb. 23 by Lieut.-Col. C. S. Riche, Corps Engrs., U. S. A., for constructing a motor dredge tender La Porte, advertised in Engineering Record.

Dredging—Port Aransas, Tex.—Bids desired until Mar. 3 by Lieut.-Col. C. S. Riche, Corps Engrs., U. S. A., Galveston, for dredging at Port Aransas and in channel from Aransas Pass to Corpus Christi, Tex., advertised in Engineering Record.

Canal Excav.—Grand Junction, Colo.—Bids desired until Mar. 10 by U. S. Reclamation Service Grand Junction for about 640,000 yds. of canal excavation situated in the vicinity of Grand Junction and Fruita Colo., advertised in Engineering Record.

Dikes, etc.—Kelso, Wash.—Bids desired until Feb. 9 by Comrs. of Diking, Dist. No. 2 (G. T. Hogg, Secy.), for constructing dikes and ditches involving 450,000 cu. yds. excavation.

Pumping Plans for Locks — Seattle, Wash.—Bids desired until Mar. 15 by Maj. J. B. Cavanaugh, Corps Engrs., U. S. A., Seattle, Wash., for pumping plant for Lake Washington Canal Locks, advertised in Engineering Record.

★**Dredging — Seattle, Wash.**—Contract reported awarded by Port of Seattle Comn., Central Bldg., to Seattle & Lake Washington Waterway Co., at 18 cts. per cu. yd., for dredging and filling canal waterway between 2d and 9th Aves. S.; about 150,000 cu. yds.

Irrigation—Holtville, Cal.—The Imperial-Laguna Water Co. (Mark Rose, Pres., Holtville) is reported interested in irrigation of about 200 acres of land in vicinity of Holtville.

Dredging — Los Angeles, Cal.—Lowest bid opened Jan. 25 by Bd. Harbor Comrs. for dredging East Channel, Los Angeles Harbor, involving removal of about 210,000 cu. yds. dirt, has been submitted by Standard American Dredging Co.

Irrigation—Red Bluff, Cal.—The Iron Canyon project, involving diversion of waters from Sacramento River at a point a few miles above Red Bluff for irrigation of 225,000 acres of the upper Sacramento Valley, has been approved by engineers of U. S. Reclamation Service, who have filed a report on the subject to the Secretary of the Interior at Washington, D. C. Besides irrigation, the project involves also a reduction of floods of Sacramento River by impounding in a reservoir the waters of the spring run-off of the upper river, improvement of navigability by regulation of the summer flow, and also development of electricity up to 70,000 hp; the report recommends an earth and rock fill dam across Sacramento River at Iron Canyon. Three heights are considered: 112, 125 and 134.5 ft. respectively. These are estimated to cost respectively $4,325,000, $5,000,000 and $7,575,000, including reservoir site, and would create water storage capacities of 231,000, 420,000 and 603,000 acre ft. respectively. The reservoir behind the dam would cover from 12,185 to 21,570 acres, according to the height of the structure; cost of the canals and distributing system is estimated at $8,400,000.

Richmond, Cal.—Press reports state that new bids will be received Feb. 15 by City Council for constructing Municipal Wharf No. 1: cost about $270,000. A. C. Faris, City Clk.

Reclamation — Yuba City, Cal.—The Trus. of Irrigation Dist. No. 1001 are reported to be making preparations to issue $500,000 bonds for improvements to canal system.

Concrete Dam — Ogden, Utah.—The directors of Davis & Weber County Canals Co. reported to have authorized a bond issue of $150,000 for construction of a concrete arch dam in East Canyon, near Morgan; probable cost $125,000.

Irrigation Work—Payson City, Utah.—Bids will be opened Feb. 24 by U. S. Reclamation Service, Provo, Utah, for constructing 49,000 yd. of canal excav. and 3670 yd. of reinforced concrete. Work is located near Payson City.

ELECTRIC RAILWAYS.

Items Arranged Geographically

Lynchburg, Va.—Lynchburg Traction & Light Co. contemplates constructing an extension to Madison Heights over proposed viaduct at 7th and Commerce St., crossing St. James River at Lynchburg.

Radford, Va.—Plans being considered for constructing railway from Willis to Radford, distance of 28 miles. A. J. McClung, Secy. Radford Bd. Trade, said to be interested.

Goldsboro, N. C.—House of Representatives at Raleigh passed on third reading bill authorizing city of Goldsboro to issue bonds for municipal street railway purposes.

Tarpon Springs, Fla.—Plans to build an interurban railway from Tarpon Springs to St. Petersburg being considered, to be 12 miles long. M. L. Waggoner, 3d Ave south, St. Petersburg, said to be interested.

New Iberia, La.—Plans being prepared by Southwestern Traction & Power Co. to construct electric railway from New Iberia, La., to St. Martinsvile, distance 10.5 miles also from Jeanerette through Franklin, Baldwin and Patterson to Berwich, distance of 50 miles. W. S. Hening, New Iberia, La., Ch. Engr.

East Linden, O.—Comrs. Franklin County granted franchise to East Linden Electric Ry. Co. to construct line between Leonard Ave. Viaduct in Columbus and East Linden.

Kankakee, Ill.—Right-of-way for electric railway between Kankakee and Lafayette has been secured from Lafayette to Rensselaer. Proposed line will be 80 miles long. O. J. Brown, Gen. Mgr.

Wichita, Kan.—Plans being considered by Arkansas Valley Interurban Ry Co. to build extension to Hutchinson. Chas. D. Bell, Ch. Engr., Wichita.

San Angelo, Tex.—Plans being considered by San Angelo Street Ry. Co. to extend lines in San Angelo to Austin, distance of about 75 miles.

RAILROADS.

Items Arranged Geographically

Charleston, S. C.—The Carolina, Atlantic & Western Ry. Co. (Wm. Moncure, Ch. Engr., Raleigh, N. C.) is reported to have decided to extend its line from Charleston to Savannah, Ga.

Rochelle, Ga.—The Ocilla Southern R.R. Co. (D. C. Smith, Gen. Mgr., Ocilla) is considering extension of the line from Rochelle to Macon.

Fayetteville, Tenn.—See "Bridges."

Jellico, Tenn.—The Jellico & Western R.R. Co. reported to have commenced surveys for an extension from Jellico to McCreary County, Ky., a distance of 30 miles.

Cleveland, O.—Representatives of the city and Nickel Plate R.R. Co. (E. E. Hart, Ch. Engr., Cleveland) are reported to have tentatively agreed on plans for an immediate start on the elimination of the West Side grade crossings of the Nickel Plate.

Grade Crossing Bonds—Newark, O.—Bids reported desired until Feb. 10 by A. Nelson Dodd, City Aud., for $240,000 bonds for eliminating grade crossing.

Chicago, Ill.—The Illinois Central R. R. Co. (A. S. Baldwin, Ch. Engr., Chicago), is reported to have sold a large amount of bonds, part of which will be used for work in contemplation in connection with improvement and betterment plans of road.

Combs, Ark.—A charter is reported to have been granted to the Black Mountain & Eastern Ry. Co., with a capital of $250,000, to construct a railroad between Combs and Cass, a distance of 20 miles. Directors: Ed. C. Jeter, of Fayetteville, and J. M. Williams and W. J. Reynolds, of Combs.

Roswell, N. M.—It is reported that the Quanah Acme & Pacific R.R. Co. (A. F. Somers, Res. Engr., Quanah) is considering extension of its line to Roswell.

Siam.—See "Bridges."

PUBLIC BUILDINGS AND SCHOOLS.

Items Arranged Geographically

Brattleboro, Vt.—Bids desired until Mar. 22 by O. Wenderoth, Superv. Archt., Washington, D. C., for the construction complete (including mechanical equipment—except elevator-lighting fixtures and approaches) of U. S. Post Office and Court House, Brattleboro.

Tufts College, Mass.—Acting President Wm. L. Hooper submitted to Bd. Trus. of Tufts College a recommendation that a chemistry building costing $100,000 be erected at Tufts College.

Providence, R. I.—City Property Com. of City Council has engaged Wm. R. Walker, 17 Custom House St., as architect for the Charles St. Grammar School.

Hartford, Conn.—Bids desired until Feb. 19 by Bd. Contract and Supply (Jos. Buths, Secy.) for furnishing equipment and interior finishing work at Hartford Municipal Building. Davis & Brooks, Archts., 49 Pearl St.

★**New Haven, Conn.**—Following are 4 lowest bids opened by Bd. of Educ. Jan. 29 for erecting Strong School, according to plans and specifications, with fireproof floors, terrazzo in corridors, and inlaid slate roofs: Lewis A. Miller, $109,300; (awarded contract); Chas. W. Murdock, $112,624; H. Wales Lines Co., $115,162; Chas. McCaul Co., $115,837.

Buffalo, N. Y.—Bids desired until Feb. 19 by Francis G. Ward, Comr. Pub. Wks., for furnishing material and erecting a 2-story fireproof police station and patrol barn in Prect. No. 8, Fillmore Ave. and Bway.

Finance Com. of the Bd. of Aldermen has recommended an appropriation of $600,000 for erecting the West Farm Tuberculosis Hospital.

Buffalo, N. Y.—See "Hydraulic and River Improvements."

Elizabethtown, N. Y.—Plans prepared by Demers, Mosley & Canpaigne, Troy, have been accepted by Bd. Educ. for the 3-story brick and stone fireproof high school, to cost $30,000. An election is to be held on the question of construction.

Hudson, N. Y.—Bids desired until Feb. 12 by Miss Mary Hinckley, Pres. Bd. Managers, N. Y. State Training School for Girls, Hudson, for new floors in cottages 1, 2, 3 and 4 at the said school, advertised in Engineering Record. Lewis F. Pilcher, State Archt., Albany.

Ithaca, N. Y.—Bids desired until Feb. 23 by E. L. Williams, Compt. Cornell Univ., Ithaca, for constructing, heating and plumbing and electric work for greenhouses at N. Y. State College of Agriculture, Cornell Univ., Ithaca, advertised in Engineering Record. Lewis F. Pilcher, State Archt., Albany.

Long Island City, L. I., N. Y.—Lowest bid opened Jan. 29 by Borough President for general construction, etc., of a stable and section house for Bureau of Street Cleaning, Flushing and Metropolitan Aves., Ridgewood, Boro. Queens, was submitted by Brady Oltarsh Constr. Co., 49 W. 140th St., New York, at $59,470. The next 3 lowest bids: Jos. Kresse Co., New York, $60,700; Kelly & Kelley, Inc., Queensboro Bridge Plaza, Long Island City, $62,100; Wm. Werner, 657 Vanderbilt Ave., Brooklyn, $65,000.

Public bids desired until Feb. 15 by C. B. J. Snyder, Supt. School Bldgs., New York City, for general construction, also plumbing and drainage of new School 93, Boro. Queens. Security $100,000 and $8,000 respectively.

★**New York, N. Y.**—Contracts in connection with the remodeling of the Washington Market have been awarded by President Manhattan Boro. as follows: Mezzanine floor and appurtenances, Rudolf Gersmann, 21 E. 137th St.; plumbing, John Harley, 16 Court St., Brooklyn; electric lighting, Electric Constr. & Supply Co., 39 Cortlandt St.; Chas. H. Higgins, 30 Church St., Archt.

Perrysburg, N. Y.—Aldermen of city of Buffalo voted to issue $60,000 bonds, proceeds to be used to enlarge J. N. Adams Memorial Hospital at Perrysburg.

Pyrites, N. Y.—School Bd. has approved the plans of J. Mills Platt, Rochester, for the new high school. An election is to be held on the improvement.

Thiells, N. Y.—Bids were opened Jan. 30 by Bd. Mgrs. Letchworth Village, at their office, 55 Wall St., New York, for constructing a laundry building and power house, including heating, plumbing, etc., at the Letchworth Village at Thiells and the following are lowest bids received:

Laundry building: General construction, Simon Russek, Inc., $33,420; heating, Gilles & Geoghegan, $8,990; electric work, W. H. Straut Co., $1,800; plumbing and drainage, Jos. F. Egan, $2,490; laundry equipment, American Laundry Machinery Co., $2,670.

Central heating plant: Equipment, Blake & Williams, $44,988; also underground piping, $18,290.

Power house: Construction, Simon Russek, Inc., $13,610; electric work, Isadore Fajans, $254; plumbing and drainage, Jos. F. Egan, $1,485.

Utica, N. Y.—Plans being prepared by E. J. Berg, Jones Bldg., for a brick and stone fireproof parochial school to be erected for St. Patrick R. C. Church at a cost of $50,000. Rev. Nicholas Quinn, Pastor, 619 Columbia St.

Ward's Island, N. Y.—Bids desired until Feb. 19 by State Hospital Comn., Albany (E. S. Elwood, Secy.), for 3 acute hospitals, one for 100 patients, one for 150 patients and one for 200 patients, including plumbing, drainage and electric work for each buildings, at Manhattan State Hospital, Ward's Island. Lewis F. Pilcher, State Archt., Albany.

Lock and Dam—Maysville, Ky.—Bids were opened Jan. 26 by Lieut.-Col. H. Jervey, Corps Engrs., U. S. A., Cincinnati, O., for constructing lock and dam No. 33, Ohio River, near Maysville, Ky., as follows: (a) Dravo Contr. Co., Pittsburgh, Pa., $1,065,047; (b) National Contract Co., Evansville, Ind., $973,234; (c) Hardaway Contr. Co., Columbus, Ga., $1,047,825; (d) Bates & Rogers Constr. Co., Chicago, Ill., $972,544; (e) T. A. Gillespie Co., Pittsburgh, Pa., $1,192,080.

	(a)	(b)	(c)	(d)	(e)
4,700 lin. ft. cofferdam, standard	$35.00	$30.00	$30.00	$29.00	$30.00
1,500 lin. ft. cofferdam, modified (box type)	14.00	20.00	25.00	19.00	20.00
1,500 lin. ft. cofferdam, modified (earth bank type)	14.00	20.00	25.00	17.00	20.00
1,500 lin. ft. cofferdam, modified (combination type)	14.00	20.00	25.00	18.00	20.00
40,021 cu. yds. common excav.	.85	.50	.50	.55	.85
61,235 cu. yds. fill	.45	.40	.50	.40	.70
26,522 cu. yds. riprap	4.30	4.00	4.50	4.00	4.00
600 cu. yds. stone paving	7.00	6.00	5.90	6.00	5.00
140,190 lin. ft. round piles	.40	.40	.40	.40	.50
1,463.15 M ft. sheet piles	55.00	45.00	60.00	55.00	70.00
708.048 M ft. common timber	65.00	60.00	60.00	52.00	90.00
250.48 M ft. deck timber	60.00	60.00	60.00	52.00	90.00
72.426 M ft. oak timber	120.00	80.00	125.00	100.00	130.00
254 cu. yds. reinforced concrete	15.00	15.00	25.00	15.00	15.00
46,936 cu. yds. concrete	6.65	6.25	7.00	6.50	8.00
3,049 cu. yds. concrete paving	7.40	7.00	8.00	7.50	10.00
869,618 lbs. structural steel	.08	.07	.06	.06	.08
121,090 lbs. reinforcing rods	.06	.07	.06	.05	.05
51,150 lbs. forgings (including wrought iron)	.08	.07	.07	.06	.08
131,804 lbs. bolts, etc.	.07	.07	.07	.06	.08
296,083 lbs. iron castings	.07	.07	.055	.06	.08
194,129 lbs. steel castings	.10	.10	.08	.10	.10
1,319 lbs. bronze	1.10	1.00	1.00	1.00	1.00
2,338 lin. ft. pipe, 6 in.	4.70	3.00	3.00	2.75	3.00
2,164 lin. ft. pipe, 4 in.	2.50	2.50	2.50	2.25	2.50
2,702 lin. ft. pipe, 3 in.	1.75	2.00	2.00	1.75	2.50
555 lin. ft. pipe, 2 in.	1.00	1.50	1.50	1.00	.75
590 lin. ft. pipe, 1½ in.	.70	1.00	1.00	1.00	.75
696 lin. ft. pipe, 1¼ in.	.50	1.00	1.00	.75	.75
754 lin. ft. tile drain	1.00	1.00	1.00	1.00	2.50

★*Items marked thus give the names of parties awarded contracts.*

Cliffside Park, N. J.—Citizens on Jan. 26 voted $102,000 bonds for erecting school. Architect not yet chosen. Address Jos. F. Whelan, Pres., 603 W. 42nd St., New York.

Collingswood, N. J.—Clyde S. Adams, Philadelphia, Pa., is architect for a 2-story brick and stone school, 55 x 100 ft., to cost $75,000.

Hasbrouck Heights, N. J.—Bids desired until Feb. 23 by Bd. Educ. for furnishing material and erecting 2 schools. Henry C. Pelton, Archt., 8 W. 38th St., New York.

Newark, N. J.—Bd. Trus. of Essex County Parental School, reported taking steps to erect at Sussex Ave. and Hecker St., a 3-story brick $50,000 building.

Lowest two bids opened Jan. 29 by Com. on Pub. Bldgs. of City Council for erecting the Central Market were from Essex Constr. Co., Newark, at $560,700, and Wm. G. Sharwell, Newark, at $598,357.

New Brunswick, N. J.—Bids reported desired until Feb. 15 by Bd. Educ., for erecting a 2-story, 180 x 190-ft. high school at Lexington and Delaware Aves. Probable cost, $165,000. Alex Merchant, Archt., 363 George St.

Nutley, N. J.—Plans submitted by Chas. Granville Jones, New York and Belleville, reported selected for school in southwest section; cost, $33,000. Bids for construction will be asked immediately by Bldgs. & Grounds Com. of Bd. Educ.

Skillman, N. J.—Plans being prepared by Geo. S. Drew, State Archt., Trenton, for 2 brick fireproof cottages to be erected for the State Home for Epileptics, each to cost $24,000.

Bridgewater, Pa.—Bd. Educ. considering plans of Chas. H. Mathews of Beaver, for 10-room school. An election is to be held on the question of construction.

Johnsonburg, Pa.—Plans for 3-story brick and stone fireproof, 150 x 200 ft. school, costing $200,000, have been prepared by Clyde S. Adams, of Philadelphia.

Kennett Square, Pa.—Reported bids desired by Bd. Educ. for erecting 2-story brick, 55 x 115 ft., school, according to plans by Clyde S. Adams, Philadelphia.

Mt. Pocono, Pa.—The Mt. Pocono Hospital for Women Company has been formed, and it is reported to be the intention of the compan yto erect a hospital between Mt. Pocono and Cresco, and to cost $100,000. Dr. A. J. Winebrake, of Scranton, is interested.

New Castle, Pa.—Reported bids desired by Bd. Educ. for repairs to W. N. Aiken School, according to plans by W. G. Williams Co., Pittsburgh.

★**Philadelphia, Pa.**—Contract for mechanical equipment of power plant at Home for Indigents at Holmesburg, awarded by Director Dept. Pub. Health, Philadelphia, to Chas. E. Monday, 1318 Olive St., at $72,409.

Plans being prepared by J. Horace Cook, Supt. Bldgs., Bd. Educ., and bids for construction will be asked about middle of February for the following schools: New building at 56 and Kingsessing Ave., 40th Sect., 30 rooms, 3 story brick and limestone; cost, $400,000. Addition to Sharswood School, 2nd and Wolf Sts., 18 rooms, 3-story brick and granite; cost $125,000. Addition to Hay School, 6th and Wharton Sts., 12 rooms, 3-story granite; cost, $80,000. Bids will be received March 5 for erecting addition to Martin School, 63d and Elmwood Aves., 9 rooms, brick; cost $70,000.

Pittsburgh, Pa.—Bids desired until Mar. 11 by O. Wenderoth, Superv. Archt., Washington, D. C., for the construction (except mechanical equipment) and approaches of the Experiment Station, Bureau of Mines, at Pittsburgh, advertised in Engineering Record.

Port Carbon, Pa.—Bids desired until Feb. 15 by Chas. W. Schneider, Secy. School Dist., P. O. Box 147, for erecting a high school at Pine and Cherry alleys. Edw. Z. Scholl, Archt., 31 N. 6th St., Reading.

★**Quarryville, Pa.**—Contract for erecting school awarded to I. N. Witmer, Lancaster, at $20,599, and for plumbing to Everts & Overdeer, of Lancaster, at $750.

Scranton, Pa.—Plans about completed by John J. Howley, Scranton, for 2-story brick and stone high school, to cost $100,000. Address Bd. Educ.

Warren, Pa.—Plans prepared by Chas. Wetmore, 16 E. 42nd St., New York, N. Y., for the $100,000 library which J. P. Jefferson intends to present to this city as a memorial to his wife. Plans are also being prepared for a maternity ward which Mr. Jefferson is to erect at the Warren Emergency Hospital to cost $30,000.

Baltimore, Md.—Reported as soon as site is decided upon competitive plans will be asked for armory to be erected for the Fourth Infantry Maryland Natl. Guard (Col. H. C. Jones, Commanding).

Easton, Md.—Bids are desired until Feb. 20 by Directors Emergency Hospital (Hampton Howell, Secy.), for erecting a 3-story brick hospital about 100 x 140 ft. Guy King & Co., Archt., 1513 Walnut St., Philadelphia.

Indian Head, Md.—Bids desired until Feb. 13 at Bureau Yards and Docks, Navy Dept., Washington, D. C. (H. R. Stanford, Ch.) for Spec. 2129—Constructing dry houses for smokeless powder at Naval Proving Ground, Indian Head. Said building will be of wood construction, resting on concrete foundations, with walls and roofs covered with corrugated steel. Interior walls of main building will be: Width of dry house 28 ft. 2 in.; length 41 ft. 5 in.; shed 13 ft. 6 in.; length 41 ft. 5 in.

Smithburg, Md.—Erection of a high school costing $30,000 is reported under consideration by School Bd.

Pulaski, Va.—School bonds amounting to $58,000 have been sold.

Fairmont, W. Va.—Bids desired until Mar. 15 by State Bd. Control, Charleston (J. S. Lakin, Pres.) for furnishing material and erecting a 2-story and basement and auditorium, 66½ x 265 ft. brick and terra cotta, wood and reinforced concrete main building for State Normal School, Fairmont, including heating, plumbing and electrical work. Paul A. Davis, 3d, Archt., Pressor Bldg., Philadelphia, Pa.

★**Kingston, N. C.**—Contract for erecting U. S. Post Office awarded to Westchester Eng. Co., White Plains, N. Y., at $51,900.

Jacksonville, Fla.—The State Armory Bd., Tallahassee, is reported about to ask bids for erecting Duval County armory according to plans by W. B. Tally, Cohen Bldg.; probable cost, $150,000.

St. Petersburg, Fla.—Bd. Educ. considering tentative plans for a high school to cost $60,000.

Forest, La.—Bids desired until Feb. 24 by W. A. Ross, Pres. West Carroll Parish School Bd., Pioneer, for furnishing material and erecting a 2-story brick school at Forest. A. J. Armstrong, Archt., Majestic Bldg., Shreveport.

★**Louisville, Ky.**—Contract for remodeling the old University of Louisville Building for school purposes awarded by Bd. Educ. to Geo. Alt & Co., at $26,718, and for ventilating and heating to W. C. Gibson & Co., at $2,760.

Belle Point, O.—Plans about completed by C. L. Inscho, Columbus, for a grade and high school.

★**Bybalia, O.**—Contract for erecting 8-room school awarded to J. W. Yarrington, of Broadway, O. C. L. Inscho, Archt., Columbus.

Cincinnati, O.—Plans approved by Bldg. Com. of School Bd. for addition to Warsaw School which is to contain 16 rooms, a gymnasium, and manual training and domestic science departments, and is to cost $150,000.

Cincinnati, O.—New plans approved for the women's building to be erected at the Univ. of Cincinnati, at a cost of $150,000. Address Bd. Directors.

Cleveland, O.—W. R. McCornack, Archt. for Bd. Educ., has completed plans for the Corlett School to be erected at 13001 Corlett Ave., to be 2 stories and contain 8 rooms.

McClure, O.—Bids desired until Feb. 13 by C. H. Houser, Clk. Bd. Educ., Rural School Dist. of Damascus Township, McClure, for erection, including heating and plumbing of a school. M. M. Stophlet, Archt., Nasby Bldg., Toledo.

New Boston, O.—Bids reported desired for 2-story brick and stone addition to Ohio Ave. school to cost $25,000. W. A. DeVoss, Archt., Portsmouth.

Powell, O.—Plans being prepared by Rusk & Sheets and C. A. Thomas & Co., Columbus, for a 12-room school to be erected here.

★**Put-in-Bay, O.**—Contract for concrete piles for the Perry Memorial awarded to MacArthur Concrete Pile & Foundation Co., 11 Pine St., New York, N. Y. Stewart Eng. Co., New York, General Contractors. J. H. Friedlander and A. D. Seymour, Assoc. Archts.; Bolier, Hodge & Bayard, Consulting Engrs.

Ripley, O.—Bids reported desired until Feb. 18 by E. E. Swisher, Clk. Bd. Educ., and Weber, Werner & Adkins, Archts., Mercantile Library Bldg., Cincinnati, for erecting 2-story and basement, 68 x 128, high school. Probable cost $40,000.

St. Marys, O.—Bids reported desired Mar. 1 by Bd. Educ. for $50,000 school bonds. It is proposed to erect 2 ward buildings.

Tobosco, O.—Plans completed by Rusk & Sheets and C. A. Thomas & Co., Columbus, for a grade and high school to contain 6 rooms and an auditorium.

Warren, O.—Lowest bid submitted for erecting 4 school buildings was from J. C. Davidson, Columbus, at $119,569.

Washington C. H., O.—Sketches and preliminary plans have been submitted to Council for the new City Hall.

Youngstown, O.—Architect is to be selected Feb. 5 for the East Madison Ave. School which is to contain 20 rooms and is to cost $130,000.

Terre Haute, Ind.—Bids will be opened Feb. 13 by Bd. School Trus. (Stella C. Stimson, Chmn.) for erecting a school at Center and Walnut Sts. Building is to be fireproof, brick, steel and reinforced concrete construction. Rodney W. Leonard, 316 Rea Bldg., Archt.

Detroit, Mich.—The Real Estate and School Bldgs. Com. of Bd. of Educ. is reported to have approved estimates amounting to $1,485,000 for buildings and sites. Among the buildings is the southwestern high school, to cost, including site, $315,000; a 20-room school to take the place of Wilkins School, cost $125,000; a 20-room school to relieve Goldberg School, cost $125,000; and another 20-room school to relieve Palmer and Moore Schools, cost $125,000.

The Fire Comn., in its annual report, asked for 3 new engine houses, one at Linwood and Lathrop Aves., to cost $27,400; a second at Brady and Rivard Sts., to cost $29,000, and the third at Warren and Rohns Aves., to cost $27,400; also new building for Engine Co. No. 8, to cost $32,000. Telegraph improvements necessary for the proper fire alarm system are estimated at $66,637, and $57,500 is asked for quarters for a new repair shop.

Alton, Ill.—Directors of Wood River School Dist. are planning erecting a high school to cost $50,000. A. K. Whitelaw has matter in charge.

Peoria, Ill.—Bids desired until Feb. 15 by Bd. School Inspectors (Anna Rynearson, Secy.) for furnishing material and erecting an addition to Whittier School, Fredonia Ave. and Cooper St. B. L. Hulsebus, Archt., German Fire Insurance Bldg.

Bradley Polytechnic Inst. (Leslie D. Puterbaugh, Pres.) reported to be considering erection of girl's dormitory to cost $80,000.

Rockford, Ill.—Peterson & Johnson, Lundberg Bldg., are preparing plans for a 4-story fireproof building for the Swedish-American Hospital; cost, $75,000.

Sparta, Ill.—Citizens voted Jan. 23 to issue $65,000 bonds for erecting a high school.

St. David, Ill.—Bids reported desired Feb. 15 by Rev. J. Dollard for erecting 2-story and basement, 60 x 120 ft., school and church. Probable cost $30,000. Henry A. Koch, Archt., Hippodrome Bldg., Peoria.

Streator, Ill.—School Bd. is considering erecting 2 school buildings.

Independence, Wis.—Bids reported desired until Feb. 17 by Joint School Dist. No. 6, Independence and Burnside (Dr. C. F. Peterson, Clk., Independence), for erecting 2-story and basement high school. Probable cost $35,000. O. H. Round, Archt., Oppenheim Bldg., St. Paul, Minn.

Lodi, Wis.—Bids desired until Feb. 12 by Bd. Educ., School Dist. No. 1, Town and Village of Lodi, at office of Dr. T. O. Goeres, for erecting a school. Chandler & Parks, Archts., Racine.

★**Oshkosh, Wis.**—Contract for remodeling and erecting addition to the high school awarded to C. R. Meyer & Sons Co., Oshkosh, at $115,000.

Portage, Wis.—Reported County Comrs. intend erecting poorhouse costing $30,000.

Sheboygan, Wis.—City Council reported considering erection of high school costing $150,000.

Missouri Valley, Ia.—Plans to be prepared by G. E. Volby, Sioux City, for a 3-story concrete and brick fireproof, 90 x 140 ft. technical high school; cost, $80,000.

Sioux City, Ia.—Trus. of Morning Side College taking steps to replace the Conservatory of Music building which was recently destroyed by fire.

Excelsior, Minn.—Bids desired until Feb. 20 by W. M. McDonald, Clk. Bd. Educ. for erecting a high school. McElroy & Kinports, Archts., Essex Bldg., Minneapolis.

Glenwood, Minn.—Site selected in this county near Glenwood on which to erect the tuberculosis hospital for joint use of Grant, Douglas, Pope and Stevens Counties.

Middle River, Minn.—Bids desired until Feb. 19 by L. H. Olson, Clk., School Dist. 126, for erecting a school, including ventilating, heating, plumbing and electric wiring. B. D. Keck, Archt., Crookston.

Minneapolis, Minn.—Following are lowest bids opened Jan. 21 by State Bd. Control, St. Paul, for erecting biological building at Univ. of Minnesota: General construction, Fleischer Rose Co., Minneapolis, $140,613; electrical work, Minneapolis Electrical Equipment Co., $17,337; plumbing and heating, M. J. O'Neil Plumb. & Htg. Co., at $32,964.

Northfield, Minn.—Plans now being prepared by Patton, Holmes & Flinn, 8 S. Dearborn St., Chicago, Ill., for two brick and stone buildings for Carleton College, each to cost $100,000; one to be used as a dormitory 167 x 50 ft., the other a chapel 90 x 140 ft.

Red Wing, Minn.—Bids desired until Feb. 9 by State Bd. Control, St. Paul, for altering the East Wing of the Boys' Dormitory building into a hospital, State Training School, Red Wing, including heating, ventilating, plumbing and electrical work. C. H. Johnston, Archt., Capital Bank Bldg., St. Paul.

St. Paul, Minn.—Sketch plans for additions to the Ames and Galtier schools to cost about $25,000 each are about completed by C. A. Hausler, City Archt. Two other 8-room school buildings, one in McClellan Dist and one in Randolph Heights Dist., are also contemplated the coming season.

McCook, Neb.—Following are four lowest bids opened Jan. 26 by Superv. Archt., Washington, D. C., for constructing U. S. Post Office, (a) limestone, (b) sandstone: C. E. Goodhand, Ord, Neb., (a) $89,950; V. E. Taylor, Huntington, W. Va., (a) $99,000, (b) $106,000; Bailey-Marsh Co., Minneapolis, Minn., (a) $99,875; Campbell Bldg. Co. of Utah, Salt Lake City, Utah, (a) $101,836, (b) $103,000; M. Yeager & Son, Danville, Ill., (b) $109,316; J. E. & A. L. Pennock, Philadelphia, Pa., (b) $109,400.

★**Bozeman, Mont.**—Contract for erecting U. S. Post Office awarded to Olson & Johnson Constr. Co., Missoula, Mont., at $61,475.

Kansas City, Mo.—Henrin, Kent & Lowry, Reserve Bank Bldg., are engineers for the power plant to be erected for St. Joseph Hospital. Wilder & Wight, Archts., First Natl. Bank Bldg.

Dallas, Tex.—Bids desired until Feb. 26 by W. T. Henderson, Comr. of Finance and Revenue for $400,000 bonds, issued for purchase of grounds and erection of schools.

Ennis, Tex.—Following are bids opened Jan. 25 by Superv. Archt., Washington, D. C., for constructing the U. S. Post Office at Ennis, (a) limestone, (b) sandstone: Volney E. Taylor, Huntington, W. Va., (b) $51,450; Reveron Constr. Co., Uniontown, Ala., (a) $53,816, (b) $54,908; Newport Contr. & Eng. Co., Newport News, Va., (a) $55,411, (b) $54,411; Geo. A. Shaul, Seneca, Kan., (a) $56,250, (b) $56,251; Frank H. Latimer & Son, Kansas City, Mo., (a) $56,840.

Uvalde, Tex.—Following are bids opened Jan. 22 by Superv. Archt., Washington, D. C., for constructing the U. S. Post Office at Uvalde (a) limestone, (b) sandstone: Reveron Constr. Co., Uniontown, Ala., (a) $38,493, (b) $38,652; Geo. Hinchliff Co., Chicago, Ill., (a) $51,110; W. R. Weston, San Antonio, (a) $52,332, (b) $53,300; Dieter & Wenzel Constr. Co., Wichita, Kan., (a) $54,587.

★**La Junta, Colo.**—Contract for erecting U. S. Post Office awarded to Geo. W. Stiles Constr. Co., Chicago, Ill., at $75,834.

Everett, Wash.—Plans being prepared by W. W. Hastings, Commerce Bldg., for a concrete school to cost $45,000.

B. F. Turnbull, Everett, is preparing plans for a $35,000 concrete school.

Pendleton, Ore.—Bids desired until Mar. 25 by O. Wenderoth, Superv. Archt., Washington, D. C., for construction complete (including mechanical equipment—except elevator-lighting fixtures and approaches) of U. S. Post Office and Court House at Pendleton.

Portland, Ore.—It is reported that the School Board will receive bids about Feb. 20 for erecting the first unit of the Kennedy School, Jesup Ave. and E. 34th St., Irvington Park; cost, $40,000. Building complete is to cost $115,000. F. A. Naramore, Supt. School Properties.

Reported sketches for proposed Franklin High School will be prepared by F. A. Naramore, Supt. School Properties. Probable cost $100,000.

Colton, Cal.—Bids reported desired by School Bd. for erecting the 2-story brick high school to cost $75,000. Allison & Allison, Archts., Hibernian Bldg., Los Angeles.

Los Angeles, Cal.—Bids reported desired Feb. 15 by Bd. Superv. for furnishing and erecting the structural steel and iron for 4 steel frame buildings at the county hospital site at Griffith Ave. and Mission Road. A. M. McPherson, Co. Clk.

Oakland, Cal.—Following are four lowest bids opened Jan. 12 by Bd. Educ. for erecting the Clawson School: Clinton Fireproofing Co., $141,350; R. W. Moller, $147,973; Van Sant-Houghton Co., $148,659; J. J. Leonard and Carnahan & Mulford, bidding the same—$151,128.

Puente, Cal.—Reported plans being prepared by Carroll H. Brown, 515 Stimson Bldg., Los Angeles, for the high school buildings to be of brick or interlocking hollow tile. Bonds amounting to $65,000 for the purchase of the site and erection of the buildings have been sold.

Redondo Beach, Cal.—Reported plans are to be prepared by A. Burnside Sturges, 1106 Story Bldg., Los Angeles, for the high school buildings for which there is available $135,000. Buildings to be of brick or hollow tile.

Riverside, Cal.—The Regents of University of California, at Berkeley, are preparing plans for a Class C laboratory for Citrus experiment station, directors' residence, etc., to be erected at Riverside.

San Francisco, Cal.—Bids reported desired until Feb. 10 by Bd. Pub. Wks., (F. J. Churchill, Secy.,) for general construction of academic building at Polytechnic High School.

★**Ogden, Utah.**—Contracts awarded as follows by Trus. of Utah School for Deaf & Blind, for erecting kindergarten building: General contract to C. F. Dinsmore, at $30,941; heating, Welshan & Atkins, $1,993 and plumbing, Halverson Bros., at $3,513. Bidders of Ogden.

★Items marked thus give the names of parties awarded contracts.

PRIVATE BUILDINGS.

Items Arranged Geographically

Lewiston, Me.—Bids desired until Feb. 8 by the Building Committee, Androscoggin Anti-Tuberculosis Assoc., Lewiston, for furnishing material and erecting a building for said Association. Gibbs & Pulsifier, Archts., Lewiston.

Lisbon Falls, Me.—The Slav Catholics reported to be taking steps to erect a church of brick construction to cost $30,000. And. Karkosdaschin is a member of the Bldg. Com.

Boston, Mass.—C. & D. J. Keefe, Boston, will erect at Columbus Ave. and Dartmouth St. a fireproof hotel costjng $200,000.

Following buildings are to be erected: five apartment houses of brick construction on Brown St., by Arthur G. Jones, cost $100,000; six 3-story apartments on Gibb St., by A. J. Martin, cost $120,000; six 3-story apartment houses of brick construction on Fuller St., by Boyd & Berry, cost $125,000.

Hartford, Conn.—Nathan Braggish, 112 Windsor St., will erect a 4-story brick business building at Windsor and Village Sts. Plans being prepared.

Winsted, Conn.—All bids opened Jan. 26 for erecting Y. M. C. A. building rejected. Plans to be revised and new bids asked.

Brooklyn, N. Y.—The members of the Cathedral Club are reported seeking a site on which to erect clubhouse costing $100,000. Frank C. Russell, Pres. Club.

Plans filed for two 6-story brick tenements at Hewes and South 2d Sts., for South 5th Constr. Co., cost $105,000; Saml. Sass, Archt., 1 Union Sq., New York.

Buffalo, N. Y.—Kenneth M. Murchison, 101 Park Ave., New York, is architect for 4-story steel frame stone and granite passenger station to be erected by Lehigh Valley R.R. at Main, Scott and Quay Sts., at a cost of $500,000.

Elmira, N. Y.—The T. M. Harton Co., Farmers Bank Bldg., Pittsburgh, Pa., is reported taking steps to erect in this city a theater.

Lestershire, N. Y.—The Williams Bridge Co., Syracuse, prepared plans for a 4-story fireproof storage warehouse, steel frame and brick, to be erected for Endicott Johnson Co., Endicott. About 500 tons of structural steel will be required; cost $150,000.

Long Island City, L. I., N. Y.—Reported Long Island R. R. Co. (J. R. Savage, Ch. Engr., Jamaica) has completed plans for a terminal market to be erected on westerly side of Dutch Kills Canal, north of Newtown Creek. Building to be 9 stories, 430 x 70 ft., and to be erected in conjunction with the State Comn. on Foods and Markets.

New York, N. Y.—Plans filed for following buildings: 6-story brick and concrete stores and storage building to be erected at 453 5th Ave. for Fredk. W. Vanderbilt, cost $500,000; Jos. Bartley, 15 Broad St., Archt. Two 5-story brick stores and tenements to be erected at Arthur Ave. and 187th St. for Vico Realty Co., cost $100,000; M. W. DelGaudio, 401 Tremont Ave., Archt.; 5-story brick stores and tenements at Crotona Ave. and 187th St. for Cosenzo Bldg. Co., cost $60,000; Lucian Pisciotta, 391 E. 149th St., Archt.

★Raymond Concrete Pile Co., 140 Cedar St., New York, has secured contracts for piles for following buildings: Foundation for Schenley School, Pittsburgh, Pa.; foundation for School No. 5, Jersey City, N. J.; appraisers' stores, Milwaukee, Wis.

Plans being prepared by Neville & Bagge, 105 W. 40th St., for a 12-story fireproof, granite, terra cotta and brick store and loft building to be erected for the Realty Holding Co., 907 Bway., at 206 to 222 W. 40th St.; cost $600,000.

Morris Kulok, tailor, 39 Eldridge St., contemplates erecting a 6-story business building at 39 to 41 Eldridge St.

Plans being prepared by Alex. Baylles, 33 Bible House, for a 20-story mercantile building to be erected on Hanover Sq. and Stone St. by Geo. Ehret, 235 E. 92d St. Cost reported at $1,100,000.

★Contract for erecting 4-story and basement brick and limestone residence for Mrs. E. S. Fabbri, at 11 E. 95th St. has been awarded to Whitney Co., 1 Liberty St. Cost $125,000. Grosvenor Atterbury, Archt., 131 E. 70th St.

Plans filed for following buildings: 2 and 9-story brick garage and warehouse at 112 W 107th St., for Chelsea Storage Warehouses, Inc., cost $100,000; Wortmann & Braun, Archts., 114 W. 28th St. 5-story brick fireproof storage warehouse at 11th Ave. and 27th St., for Terminal Warehousing Co., cost $60,000; Otto M. Beck, Archt., 1326 55th St., Brooklyn. 16-story brick fireproof store and loft building at 33d St. and Park Ave. for Geo. A. Wheelock, cost $350,000; Geo. Keister, 56 W. 45th St., Archt. 21-story fireproof brick store, lofts and offices at 8th Ave., 34th and 33d Sts., for Archibald D. Russell, cost $2,500,000; Edw. L. Larkin, Archt., 259 W. 34th St. 16-story fireproof stores and factory building at 1237 Bway. for Walter F. Hopper, cost $350,000; Katz & Feiner, Archts., 505 5th Ave. Two 5-story brick apartment houses at Nelson Ave. and Brandt Pl., for John Davis, Montclair; cost $80,000; Edw. J. Byrne, 148th St. and 3d Ave., Archt. 3-story brick clubhouse at Washington Ave and 160th St., for Y. M. C. A., cost $240,000; L. E. Jallade, 37 Liberty St., Archt. Two 5-story brick tenements at Grand Ave. and Buchanan Pl., for Kate M. and John Norton, cost $90,000; Clarence True & Son, 405 Lexington Ave., Archts. Four 5-story brick tenements at Cauldwell Ave. and 160th St., for Ebling Co., cost $140,000; Wm. Koppe, Archt., 830 Westchester Ave. Three 5-story brick tenements at College Ave. and 168th St., for Jas. C. Gaffney, cost $128,000; Edw. J. Clark, Archt., 110 E. 121st St. 5-story brick tenement at 176th St. and Clinton Ave. for Chas. T. Streeter Constr. Co., cost $60,000; Tremont Architectural Co., 401 Tremont Ave., Archts. Two 5-story brick tenements at Ave. St. John and Fox St., for Normal Constr. Co., cost $120,000; Chas. E. Meyers, 1 Union Sq. W., Archt.

Rochester, N. Y.—Plans being prepared by Foster & Gade for a 5-story 200 x 90 ft. reinforced concrete warehouse to be erected on Canal St. by Brewster, Gordon & Co., wholesale grocers, 43 N. Water St.

Williamsville, N. Y.—Bd. Directors of Blocher Homes (Percival M. White, Secy.) reported taking steps to erect building costing $75,000.

Absecon, N. J.—Plans being prepared by Ralph E. White, Penna. Bldg., Philadelphia, Pa., for an addition to the clubhouse of the Absecon Golf Club to cost $30,000.

Hightstown, N. J.—The Baptist Church intends erecting a $25,000 building for Sunday school purposes. Thos. E. Applegate, Church Clerk.

Jersey City, N. J.—Plans are to be prepared by Maximilian Zipkes, 405 Lexington Ave., New York, N. Y., for an apartment house to be erected at a cost of $150,000. Zermann Realty & Constr. Co., owner.

★Contract for erecting a 9-story, 79 x 103 ft., reinforced concrete addition to the warehouse on Bay St. for Great Atlantic & Pacific Tea Co. awarded to Turner Constr. Co., 11 Bway., New York. Timmis & Chapman, 315 5th Ave., New York, Archts.

Jersey City, N. J.—Atlantic & Pacific Tea Co. has secured additional ground on Bay St. on which it is reported a $200,000 building is to be erected.

Newark, N. J.—Eagles reported considering club house costing $25,000.

Rahway, N. J.—Pennsylvania R.R. Co. (A. C. Shand, Ch. Engr., Philadelphia, Pa.) reported receiving estimates to be opened Feb. 13 for erecting a 1-story steel and concrete platform and shelter sheds.

Philadelphia, Pa.—Plans being prepared by Henry D. Dagit, 411 Walnut St., for 3-story convent building, 75 x 58 ft., to be erected at 11th and Master Sts. for St. Malachy's R. C. Church.

Sayre, Pa.—Reported plans being prepared for engine house to be erected by Lehigh Valley R.R. (E. B. Ashby, Ch. Engr., 143 Liberty St., New York, N. Y.)

Scranton, Pa.—Plans prepared by John J. Howley, Traders Bank Bldg., for 1-story brick and terra cotta church for St. Michael's R. C. Church, to cost $40,000.

Plans prepared by J. A. Duckworth, Coal Exchange Bldg., for a 1-story concrete and frame dairy barn, 40 x 180 ft., to cost $25,000.

Albert J. Ward, Scranton, is architect for club house for Young Men's Hebrew Assoc.; cost $50,000.

State College, Pa.—Bids reported desired until Feb. 16 by Mellor & Meigs, Archts., Philadelphia, for erecting 2½-story brick and stone clubhouse for the Phi Gamma Delta Fraternity.

Stroudsburg, Pa.—Reported bids desired for rebuilding and enlarging the Y. M. C. A. building according to plans by C. L. Harding, of Washington, D. C.

Washington, D. C.—Bids reported desired by National Publishing Co. for erecting building on H St. according to plans by Milburn, Heister & Co., Washington, D. C.

Washington Architectural Club reported considering erecting a club house. A. L. Blakeslee, 4522, 14th St., N. W., Pres.

★Contract for erecting 3-story dormitory for Bliss Electrical School awarded to Boyle Robertson Constr. Co., Washington, D. C.; cost about $35,000.

Lynchburg, Va.—Alfred C. Bossom, 366 5th Ave., New York, N. Y., is architect for the Concord granite building to be erected at 9th and Main Sts. for the Lynchburg Natl. Bank; cost $100,000.

Purcellville, Va.—Plans being prepared by Milburn, Heister & Co., Washington, D. C., for building to replace Purcell Natl. Bank, recently destroyed by fire. Bids asked in spring for construction.

★**Charlotte, N. C.**—Contract for erecting a 3-story fireproof reinforced concrete 600 x 100 ft. building on W. First and Church Sts. for the Mercantile Development Co., awarded to Travers-Wood Co., Richmond, Va., and Charlotte. The building is to house the offices of the Southern Power Co., Southern Public Utilities Co., Piedmont & Northern R. R., and affiliated enterprises. Cost $250,000.

Durham, N. C.—Plans being prepared by Milburn, Heister & Co., Washington, D. C., for First Presbyterian Church. Bids for construction will be taken in early spring.

★**Birmingham, Ala.**—Contract for erecting the 4-story concrete and steel, fireproof building on Mayberry lot for the Southern Land Co., awarded to R. V. LaBarre. Harry Wheelock, archt., Birmingham.

Louisville, Ky.—Preliminary sketches for Y. W. C. A. building to be erected at Bway. and 2d St. prepared by John Bacon Hutchins, Columbia Bldg., have been approved by Directors of the Assoc. Cost about $300,000.

Reported contract will be let about Feb. 12 by B. Bernstein, for erecting on 4th St. a 4-story building costing $75,000, according to plans by Joseph & Joseph, Louisville.

★Contract for erecting a 4-story reinforced concrete building at Brook and Market Sts. has been awarded to Alfred Struck Co., Louisville. Cost complete $75,000. Joseph & Joseph, Archts., Louisville.

Bellaire, O.—United Brethren Church intends erecting at 27th and Union Sts. a 1-story brick and stone church costing $40,000.

★**Canton, O.**—Contract for erecting the Christian Science church on Cleveland Ave. N. W., has been awarded to J. L. Van Kirk & Son, Canton. Cost $30,000.

Cincinnati, O.—Eizner & Anderson, Ingalls Bldg., have been selected to prepare plans for the Y. M. C. A. Building to be erected at Elm and Canal Sts.

Lima, O.—Lodge of Moose reported considering erection of a $100,000 club house.

Indianapolis, Ind.—Tentative plans prepared by Wilbur T. Mills & Co., Columbus, O., for 10-story, 200-room hotel to be erected at Washington St. and Senate Ave. by McMahon, Ernest & Co., 908 State Life Bldg. Cost $250,000.

Tocsin, Ind.—Bids desired until Feb. 10 by Bldg. Com., United Brethren Church (I. W. Wasson, Secy.), for erecting solid brick and part brick veneered edifice.

Coldwater, Mich.—Plans are prepared by Maurice P. Carney, Battle Creek, for Masonic temple, which Masonic Assoc. contemplates erecting.

Detroit, Mich.—S. E. Sallan, jeweler, 94 Woodward Ave., intends erecting at Woodward and Gratiot Aves., a 6-story building costing $50,000.

The Peters Tobacco Co. will erect a 3-story building at 107 Larned St. E.

Chicago, Ill.—Plans completed by Holabird & Roche, Monroe Bldg., and construction about to be started on the 15-story store, shop and office building to be erected at State and Adams Sts. by Buck & Rayner Co. at an approximate cost of $750,000. Glass and marble will be used in construction.

Chicago, Ill.—Plans prepared by Graham, Burnham & Co., 80 E. Jackson Boule., for a 16-story, attic and 3 basement, 122 x 109 ft. building to be erected at Wabash Ave. and Jackson Boule., costing $2,000,000, by W. W. Kimball Co.

Lodge No. 4 of the B. P. O. Elks intends erecting at 174 W. Washington St. a lodge building costing $200,000.

Plans prepared by Geo. C. Nimmons, People's Gas Bldg., for a reinforced concrete addition to the 5-story building of the Jewel Tea Co., at Washington Boule. and Ada St., cost $200,000.

★**Decatur, Ill.**—Contract awarded to J. L. Simmons Co., Chicago, for erecting the Hotel Orlando, which is to cost complete about $400,000.

Milwaukee, Wis.—Milwaukee-Pere Marquette Council will erect a 3-story brick and stone addition to club house on Grand Ave. and 15th St. Cost $50,000. Bids for construction will be asked after Mar. 1.

St. Paul, Minn.—Dale Athletic Club reported to be considering building a club house at Dale St. and Shelby Ave. Chas. Byrnes, Secy.

The St. Columba Church intends erecting a $75,000 church and a $40,000 school. Rev. M. J. Casey, pastor.

Emmons, N. D.—Bids desired for erecting a 2-story brick and stone building for the First Natl. Bank of Emmons. Thorwald Thorson, Archt., Forest City, Ia.

★**Atchison, Kan.**—Contract awarded Jan. 22 to G. H. T. Schaefer for a Masonic Temple at 5th and Kansas Ave. for the Masonic Charity Assoc.; cost $42,000. Crumpacker & Wyatt, Archts., Atchison.

Miles City, Mont.—C. J. Wegenbreth and assoc. plan erecting a $150,000 hotel this summer.

Kansas City, Mo.—The Hillcrest Club will erect a stone and stucco club house costing $50,000. D. W. Eaton, Secy:

St. Louis, Mo.—Bids reported desired for erecting 10-story stone and reinforced concrete building at 4th St. and Washington Ave. for the Missouri Athletic Assoc. to cost $500,000. Wm. B. Ittner, 911 Locust St., and G. F. A. Brueggeman, 39 Natl. Bank Bldg., Archts.

★Contract for erecting the Westminster Presbyterian Church on Delmar Ave. and Union Boule. awarded to Murch Bros., Odd Fellows' Bldg.; cost, $90,000. Rev. J. F. Cannon, Pastor.

John H. Bernard reported to have submitted to Bd. Pub. Service a proposition by which a company in which he is interested will erect a warehouse costing $600,000 on the levee for the interchange of freight from water to land conveyances, in connection with a line of self-propelling steel barges to be operated between New Orleans and St. Louis. The city is asked to cooperate by providing necessary terminal facilities for handling the freight to and from the river barges and to allow the company docking privileges and a location on the levee for its warehouse.

Albuquerque, N. M.—Directors of Y. M. C. A. selected plans of Shattuck & Hussey, Chicago, Ill., for 3-story brick building.

Bremerton, Wash.—Reported bids desired by Oswald & Rantz, of the Osran Amusement Co., for erecting a concrete, 60 x 120 ft. motion picture theater on Burwell Ave. and Pacific St., to cost $60,000.

★**Seattle, Wash.**—Contract for erecting 2-story office building for H. C. Henry Investment Co. at 4th Ave. and Seneca St. awarded to Neil McDonald, Northern Bank & Trust Co. Bldg.; heating and plumbing to Norton & Smith; cost, $50,000. Carl Siebrand, Arcade Bldg., Archt.

Plans completed about Feb. 15 and bids for construction will be asked soon after that date for erecting 4-story brick apartment house for Modern Woodmen of the World, Camp No. 69, at Pine St. and Minor Ave., at a cost of $105,000. J. O. Taft, Archt., 2324 10th Ave. N.

Seattle, Wash.—Plans completed by J. L. Adams, Pres. Washington Film Co., Washington Bldg., for a moving picture theater to be erected in the Kirkland Dist.; cost $100,000.

★**Tacoma, Wash.**—Contract for erecting 4-story reinforced concrete 75 x 112 ft. club house for the Lodge of Elks reported awarded to Cornell Bros., Savage-Schofield Bldg., at about $100,000. C. Frere Champney, Henry Bldg., Seattle, Archt.

Klamath Falls, Ore.—The Lodge of Elks will erect a temple costing $50,000.

Chico, Cal.—F. W. Miller intends erecting at 3d and Salem Sts. a 2-story reinforced concrete and brick store and apartment house costing $30,000.

San Francisco, Cal.—H. Ryan, Northern Bank Bldg., Seattle, Wash., is preparing plans for a 6-story reinforced concrete and steel office and theater building to be erected at a cost of $400,000.

Plans being prepared by Rousseau & Rousseau, Monadnock Bldg., for a 6-story brick and steel apartment house to be erected at Jones and Pine Sts. at a cost of about $125,000. T. A. Ruifs, owner.

Salt Lake City, Utah.—Reported Oregon Short Line (R. L. Huntley, Ch. Engr., Omaha, Neb.) intends erecting 6 stall additions to the round houses in Salt Lake City, Utah, and Montpilier, Idaho

NEW INDUSTRIAL PLANTS.

See also "Private Buildings."

Items Arranged Geographically

Manchester, N. H.—The W. H. McElwain Co. is planning erecting an addition to the central plant in South Manchester and to enlarge their present power plant; cost $100,000.

★**Lynn, Mass.**—Contract for 1400 pedestal concrete piles and a 12-in. concrete slab for gas holder for Lynn Gas & Electric Co. awarded to MacArthur Concrete Pile & Found. Co., 11 Pine St., New York, and for the tank to Bartlett Hayward Co., Baltimore, Md.

Buffalo, N. Y.—Plans being prepared by Condron Co., Engrs., Chicago, Ill., for an assembly plant, 200 x 450 ft., 4 stories and basement, to be erected at Main St. and N. Y. Central Belt Line for the Ford Motor Co., of Detroit, Mich.; cost $400,000.

Buffalo, N. Y.—We are informed that the proposed building to be erected here by the Buffalo Meter Co. will be used for machine shop and brass foundry; it will be of reinforced concrete, 5 stories, 80 x 200 ft. Architect, Lockwood Green & Co., of Boston, Mass.

★**Eastwood, N. Y.**—Contract awarded to Taylor Hornby Constr. Co., Syracuse, for erecting 2-story pattern foundry and warehouse, 40 x 68 ft., for Pierce Butler & Pierce, Syracuse.

★**Ilion, N. Y.**—Contract for 60,000 sq. ft. of roofing and 160,000 sq. ft. of floor water proofing for the new buildings of the Remington Arms & Ammunition Co. awarded to Mohawk Valley Roofing Corpor. of Utica.

Lockport, N. Y.—Plans being prepared by Jas. R. Tyler, Insurance Bldg., Rochester, for a 2-story, 70 x 85 ft. addition to the plant of the Harrison Radiator Wks. (Oliver Diahl, Pres.).

Plans being prepared for a 3-story, 45 x 120 ft. factory to be erected by Dunnville & Co. (Louis L. Patterson, Pres., 48 Market St.).

Port Jervis, N. Y.—The Katterman & Mitchell Co. intends installing 250 looms in the silk mills under construction; also electric power equipment.

★**Philadelphia, Pa.**—Contract for erecting a brick, steel and concrete fireproof ice storage house, refrigerating rooms and office building for the Norris Market Ice Mfg. & Cold Storage Co. at 3d and Norris Sts., has been awarded to Philip Haibach Contr. Co., 2530 Thompson St. Building is to be insulated with sheet cork insulation and arranged with modern equipment. Peuckert & Wunder, Engrs. & Archts., 310 Chestnut St.

★*Items marked thus give the names of parties awarded contracts.*

★**Canton, Md.**—Contract awarded to Turner Constr. Co., 11 Bway., New York, for erecting mechanical building for Standard Oil Co., of New Jersey. Building to be 2 story, reinforced concrete, 200 x 50 ft.

Jacksonville, Fla.—Southern Cattle Co. will erect an abattoir here costing $25,000. S. Summerlyn, of Jacksonville, Secy.

New Orleans, La.—Reported Louisiana Ry. & Navigation Co. (W. H. Coppage, Supt., Shreveport), is interested in the building of a grain elevator on the river front, to cost $250,000.

★**Cleveland, O.**—Contract for erecting brick, steel and concrete addition to present plant of the Chandler Motor Car Co., E. 31st St., near St. Clair Ave., awarded to Volton-Pratt Co., 902 Columbia Bldg. Ernest McGeorge, archt., Leader-News Bldg.

Fostoria, O.—A. J. McCrea, Cleveland, reported interested in company intending erecting packing house in Fostoria costing $50,000.

Milwaukee, Wis.—Bids desired at once by H. W. Buemming, Archt., 521 Jackson St., for erecting a factory building of mill construction for the C. B. Liedersdorf Tobacco Co.; cost about $30,000.

Victorville, Cal.—El Paso Southwestern Portland Cement Co., El Paso, Tex., it is reported, will establish a plant here costing $400,000. Carl Leonardt, H. W. Hillman Bldg., Los Angeles, Pres.

Rexburg, Idaho. — Reported Rexburg Milling Co. intends rebuilding plant recently destroyed by fire.

Kingston, Ont.—The plant of Davis & Co., recently destroyed by fire, is to be rebuilt.

Lindsay, Ont.—The mill of Horne Bros. Milling Co., recently destroyed by fire, is to be rebuilt.

Calgary, Alta.—J. C. Boyle, Calgary, reported interested in erection of a $1,000,000 packing plant in this city, to be of brick, steel and concrete construction.

Knik, Alaska.—Plans completed by J. S. Arnot, 1510 L. C. Smith Bldg., Seattle, Wash., for a warehouse, 40 x 150 ft. packing plant, etc., for Deep Sea Salmon Co.

MISCELLANEOUS.

See also "Hydraulic Construction and River Improvements."

Items Arranged Geographically

Crushed Stone—Boston, Mass.—Bids desired until Feb. 10 by D. Frank Doherty, Supt. Supplies, for furnishing crushed stone between Mar. 1, 1915, and Feb. 1, 1916.

Launch—New York, N. Y.—Birs desired until Feb. 15 by Col. W. M. Black, Corps Engrs., U. S. A., New York, for a motor launch, advertised in Engineering Record.

Elevator, Etc. — Pittsburgh, Pa.—Bids desired until Mar. 11 by O. Wenderoth, Superv. Archt., Washington, D. C., for installing an electric passenger elevator in Experimental Station, Bureau Mines, Pittsburgh; also a separate bid for installing mechanical equipment (except elevator) in above building.

Swimming Pool — Baltimore, Md.—The Park Bd. has decided to build a swimming pool in Clifton Park this year, to cost about $30,000.

Crane—Norfolk, Va.—Bids desired until Feb. 27 (extension of date from Feb. 13) at the Bureau Yards and Docks, Navy Dept., Washington, D. C., for Spec. 2092—A 150-ton capacity floating revolving crane for Navy Yard, Norfolk. Cost about $450,000.

Elevator—Clarksdale, Miss.—Bids desired until Feb. 25 by O. Wenderoth, Superv. Archt., Washington, D. C., for installing, complete, an electric passenger elevator in U. S. Post Office and Court House, Clarksdale.

Cement—Cleveland, O.—Bids desired until Feb. 12 by Commissioner Purchases and Supplies, for furnishing cement for Dept. Pub. Utilities, Div. of Water.

Cement—Chicago, Ill.—Bids reported desired until Feb. 10 by Thos. O'Connor, Ch. Fire Dept., for furnishing fire dept. with cement during year 1915.

Cement—Illinois.—Bids desired by State Highway Comn., Springfield (Wm. W. Marr, Ch. State Highway Engr.), for furnishing approximately 235,500 bbls. cement to be used in State Aid Road construction for the year 1915.

Boilers—Illinois.—Bids desired until Feb. 15 by State Bd. of Administration, Springfield, for furnishing and installing 18 high-pressure water-tube boilers and accessories at the following State Institutions: 4 at Elgin State Hospital, Elgin; 4 at Alton State Hospital, Alton; 6 at Chicago State Hospital, Dunning; 4 at State Colony for Epileptics on site near Dixon. M. C. Schwab, Engr., Mallers Bldg., Chicago.

Cement—Cresco, Ia.—Bids reported desired until Feb. 10 by E. A. Hoopman, Co. Aud., for furnishing about 5000 bbls. Portland cement.

Heating Plant—Des Moines, Ia.—The Des Moines Electric Co. is reported to be considering construction of a heating plant; cost about $400,000.

Cement—Independence, Ia.—Bids reported desired until Feb. 11 by E. A. Bordner, County Aud., for furnishing Portland cement during year 1915. F. W. Gearhart, Co. Highway Engr.

Cement and Culverts—Sigourney, Ia.—Bids reported desired until Feb. 12 by County Auditor for furnishing Portland cement, reinforcing bars and corrugated culverts.

Elevators, etc.—San Francisco, Cal.—Bids reported desired until Feb. 10 by Bd Pub. Wks. (F. J. Churchill, Secy.), for installing elevators, hydraulic lifts, etc., in City Hall.

Engines and Compressors—Ketchikan, Alaska.—Bids desired until Mar. 10 at office of Lighthouse Inspector, Ketchikan, for furnishing 2 internal combustion engines and air compressors and 2 internal combustion hoisting engines for Cape St. Elias Light Station, Alaska.

Structural Steel, Pipe, Etc.—Panama.—Bids desired until Feb. 18 at office of Maj. F. C. Boggs, Corps Engrs., U. S. A., General Purchasing Officer, Isthmian Canal Comn., Washington, D. C., for Cir. 900—Structural steel, steel and iron castings, wrought iron and steel pipe, pipe fittings, etc.

Proposals

For Proposals Advertised see Pages 41(a) and 41(b)

WATERWORKS.

Bids Close.		See Eng. Record.
Feb. 8.	Water Wks., East Peoria, Ill. Adv. Jan. 23.	Jan. 23
Feb. 9.	Sedimentation Basin, Philadelphia, Pa. Adv. Jan. 16 to 30.	Jan. 16
Feb. 9.	Meters, Akron, O.	Jan. 30
Feb. 9.	System, Hawthorne, N. J. Adv. Jan. 30.	Jan. 30
Feb. 9.	Pump, Annapolis, Md.	Feb. 6
Feb. 9.	Pipe, Troy, N. Y.	Feb. 6
Feb. 9.	Pipe, Saginaw, Mich.	Feb. 6
Feb. 9.	Pipe Line, Philadelphia, Pa.	Feb. 6
Feb. 12.	Supply for Buildings, Napoleon, O.	Jan. 23
Feb. 12.	Pipe, Etc., Asheville, N. C.	Jan. 30
Feb. 12.	Pipe, Cleveland, O.	Feb. 6
Feb. 12.	Meters, Akron, O.	Feb. 6
Feb. 14.	Gas Producer and Engine, Margate City, N. J. Adv. Feb. 6.	Feb. 6
Feb. 14.	Pump, Margate City, Atlantic City, N. J.	Feb. 6
Feb. 15.	Reservoir, Tampa, Fla.	Jan. 30
Feb. 15.	Distribution System, Mt. Morris, N. Y. Adv. Feb. 6.	Feb. 6
Feb. 20.	Laying Pipe, Middletown, N. Y.	Jan. 23
Feb. 20.	Extensions, Yale, Okla.	Feb. 6
Feb. 23.	Extensions, Laramie, Wyo. Adv. Jan. 30, Feb. 6.	Jan. 30
Mar. 1.	Pump Plant for P. O. Bldg., Kansas City, Kan.	Jan. 30
Mar. 2.	Reservoir, Fitchburg, Mass. Adv. Feb. 6.	Jan. 23
Mar. 12.	Pipe, Etc., Royal Oak, B. C.	Feb. 6

SEWERAGE AND SEWAGE DISPOSAL.

Feb. 9.	Newark, N. J.	Jan. 30
Feb. 10.	Brooklyn, N. Y.	Jan. 30
Feb. 11.	Cambridge, O.	Jan. 30
Feb. 11.	Cleveland, O.	Feb. 6
Feb. 15.	East Youngstown, O.	Jan. 30
Feb. 15.	Ventnor City, N. J.	Jan. 30
Feb. 15.	Washington, D. C. Adv. Feb. 6.	Feb. 6
Feb. 16.	Eldorado, Kan.	Jan. 30
Feb. 16.	Warren, R. I. Adv. Jan. 30.	Jan. 30
Feb. 23.	Philadelphia, Pa.	Jan. 30
Feb. 24.	Milwaukee, Wis. Adv. Jan. 30, Feb. 6.	Jan. 30
Feb. 26.	Philadelphia, Pa.	Jan. 30
Mar. 1.	Philadelphia, Pa.	Jan. 30
Mar. 3.	Philadelphia, Pa.	Jan. 30
Mar. 5.	Philadelphia, Pa.	Jan. 30

BRIDGES.

Feb. 9.	Illinois	Jan. 30
Feb. 9.	Central City, Neb.	Feb. 6
Feb. 10.	Ivanhoe, Minn.	Jan. 23
Feb. 10.	Houston, Tex.	Feb. 6
Feb. 12.	Calgary, Alta.	Jan. 16
Feb. 16.	Bedford City, Va.	Feb. 6
Feb. 16.	Cleveland, O.	Feb. 6
Feb. 17.	Washington, D. C. Adv. Jan. 23 to Feb. 6.	Jan. 23
Feb. 17.	Portland, Ore. Adv. Jan. 30, Feb. 6.	Jan. 30
Feb. 18.	Ottawa, Ont.	Feb. 6
Feb. 19.	Lawrenceville, Va.	Feb. 6
Feb. 23.	Portland, Ore. Adv. Jan. 16 to 30.	Jan 16
Feb. 23.	Cleveland, O.	Feb. 6
Feb. 23.	Knoxville, Ia.	Feb. 6
Feb. 26.	Cincinnati, O.	Feb. 6
Mar. 1.	Elkins, W. Va.	Feb. 6
Mar. 2.	Illinois	Jan. 30
Mar. 3.	Illinois	Jan. 30
Mar. 3.	Ft. Monroe, Va. Adv. Feb. 6.	Feb. 6
Mar. 3.	Superior, Wis.	Feb. 6
Mar. 9.	Illinois	Jan. 30
Mar. 16.	Illinois	Jan. 30
Jun. 1.	Broad Gauge, Bangkok, Siam.	Feb. 6
———	Siam Adv. Feb. 6.	Feb. 6

PAVING AND ROADS.

Feb. 8.	Greenville, Pa. Adv. Jan. 23.	Jan. 23
Feb. 9.	Beaver, Pa.	Jan. 30
Feb. 9.	Carroll, Ia.	Jan. 30
Feb. 9.	Ellicott City, Md.	Feb. 6
Feb. 10.	Seattle, Wash.	Jan. 16
Feb. 10.	Ivanhoe, Minn.	Jan. 23
Feb. 10.	Birmingham, Mich.	Feb. 6
Feb. 10.	New Albany, Ind.	Feb. 6
Feb. 10.	Saginaw, Mich.	Feb.
Feb. 11.	Cambridge, O.	Jan. 30
Feb. 11.	Buffalo, N. Y.	Feb. 6
Feb. 11.	Port Huron, Mich.	Feb. 6
Feb. 11.	Rock Island, Ill.	Feb.
Feb. 15.	Marshalltown, Ia.	Jan. 16
Feb. 15.	Cleveland Heights, O.	Jan. 23
Feb. 15.	Emmetsburg, Ia. Adv. Jan. 30.	Jan. 30
Feb. 16.	West Liberty, Ia.	Jan. 30
Feb. 16.	Paulding, O.	Feb. 6
Feb. 16.	Cleveland, O.	Feb. 6
Feb. 16.	Maryland	Feb. 6
Feb. 16.	Belle Plaine, Ia.	Feb. 6
Feb. 23.	Dundee, Mich.	Feb. 6
Feb. 24.	Paulding, O.	Jan. 30
Feb. 24.	Canton, O.	Feb. 6
Feb. 27.	Wilmington, N. C.	Feb. 6
Mar. 2.	Bonds, Jellico, Tenn. Adv. Feb. 6.	Feb. 6

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Feb. 8.	Drainage, Cape Girardeau, Mo. Adv. Jan. 30.	Jan. 30
Feb. 9.	Steel Hull for Derrick Boat, Cincinnati, O.	Jan. 16
Feb. 9.	Ditches, Fairmont, Minn.	Jan. 30
Feb. 9.	Dikes, Etc., Kelso, Wash.	Feb. 6
Feb. 9.	Drain Tile, Saginaw, Mich.	Feb. 6
Feb. 10.	Irrigation, Oakdale, Cal.	Jan. 9
Feb. 10.	Stone for Jetty, Lone Tree, Wash.	Jan. 23
Feb. 10.	Ditches, Slayton, Minn.	Jan. 30
Feb. 11.	Dredging, New York, N. Y. Adv. Jan. 16 to Feb. 6.	Jan. 16
Feb. 11.	Wharf, Washington, D. C. Adv. Jan. 23.	Jan. 23
Feb. 11.	Ditches, Slayton, Minn.	Jan. 30
Feb. 12.	Ditch, Clintonville, Wis.	Feb. 6
Feb. 15.	Electric Hoist, Philadelphia, Pa. Adv. Jan. 9 to 16.	Jan. 9
Feb. 15.	Ditches, Walker, Minn.	Feb. 6
Feb. 15.	Wharf, Richmond, Cal.	Feb. 6
Feb. 16.	Ditch, Olivia, Minn.	Feb.
Feb. 17.	Cofferdam, Seattle, Wash.	Jan. 30
Feb. 17.	Ditch, Ortonville, Minn.	Feb. 6
Feb. 18.	Channel, Edina, Mo. Adv. Jan. 30, Feb. 6.	Jan. 30
Feb. 18.	Dredging, Boston, Mass.	Jan. 30
Feb. 19.	Pumping Station for Drainage Dist., Quincy, Ill. Adv. Jan. 16 to 30.	Jan. 16
Feb. 19.	Dredging, New York, N. Y. Adv. Feb. 6.	Feb. 6
Feb. 20.	Wharf, Brooklyn, N. Y. Adv. Jan. 23 to Feb. 6.	Jan. 23
Feb. 20.	Gate House for Canal, Buffalo, N. Y.	Feb. 6
Feb. 23.	Dredge Tender, Galveston, Tex. Adv. Jan. 30, Feb. 6.	Jan. 30
Feb. 23.	Dredging, Portchester, N. Y. Adv. Jan. 30, Feb. 6.	Jan. 30
Feb. 23.	Ditch, Slayton, Minn.	Feb. 6
Feb. 24.	Valves, etc., for Dry Dock No. 1, Panama	Jan. 9
Feb. 24.	Pump. Plant for Dry Dock, Panama	Jan. 9
Feb. 24.	Irrigation, Payson City, Utah Adv. Jan. 30.	Jan. 30
Feb. 24.	Stone for Jetty, Savannah, Ga. Adv. Jan. 30, Feb. 6.	Jan. 30
Feb. 24.	Lock Gates, Louisville, Ky. Adv. Jan. 30.	Jan. 30
Feb. 25.	Dredging, Toledo, O. Adv. Jan. 30, Feb. 6.	Jan. 30
Feb. 26.	Tow Boats, Cincinnati, O. Adv. Jan. 30 to Feb. 6.	Jan. 30
Feb. 26.	Drainage, Kansas City, Kan. Adv. Feb. 6.	Feb. 6
Mar. 1.	Revetment, New London, Conn. Adv. Jan. 23 to Feb. 6.	Jan. 23
Mar. 2.	Steel Flue Flats, Cincinnati, O. Adv. Jan. 30 to Feb. 6.	Jan. 30
Mar. 3.	Dredging, Port Aransas, Tex. Adv. Feb. 6.	Feb. 6
Mar. 10.	Canal Excav., Grand Junction, Colo. Adv. Feb. 6.	Feb. 6
Mar. 15.	Pump. Plans for Lock, Seattle, Wash. Adv. Feb. 6.	Feb. 6

PUBLIC BUILDINGS AND SCHOOLS.

Feb. 9.	Lakewood, O.	Jan. 23
Feb. 9.	Boston, Mass.	Jan. 30
Feb. 9.	Red Wing, Minn.	Feb. 6
Feb. 10.	San Francisco, Cal.	Feb.
Feb. 11.	Dayton, O.	Jan. 23
Feb. 11.	Ft. Myer, Va. Adv. Jan. 23 to Feb. 6.	Jan. 23
Feb. 11.	Lawton, Okla.	Jan. 30
Feb. 11.	Garner, Ia.	Jan. 30
Feb. 12.	Sioux Falls, S. D.	Jan. 23
Feb. 12.	Bowling Green, O.	Jan. 23
Feb. 12.	Hudson, N. Y. Adv. Jan. 30, Feb. 6.	Jan. 30
Feb. 12.	Lodi, Wis.	Feb. 6
Feb. 13.	Terre Haute, Ind. Adv. Jan. 30.	Jan. 30
Feb. 13.	Delaware, O.	Jan. 30
Feb. 13.	Indian Head, Md.	Feb. 6
Feb. 13.	McClure, O.	Feb. 6
Feb. 15.	Toledo, O.	Jan. 23
Feb. 15.	Momence, Ill.	Jan. 30
Feb. 15.	Cleveland, O.	Jan. 30
Feb. 15.	Ft. Constitution, N. H.	Jan. 30
Feb. 15.	St. David, Ill.	Feb. 6
Feb. 15.	Peoria, Ill.	Feb. 6
Feb. 15.	New Brunswick, N. J.	Feb. 6
Feb. 15.	Port Carbon, Pa.	Feb. 6
Feb. 15.	Los Angeles, Cal.	Feb. 6
Feb. 15.	Long Island City, N. Y.	Feb. 6
Feb. 16.	Cincinnati, O.	Dec. 12
Feb. 17.	Independence, Wis.	Feb. 6
Feb. 17.	Seattle, Wash.	Jan. 30
Feb. 18.	Lincoln, Neb.	Jan. 9
Feb. 18.	Indian Head, Sask.	Jan. 30
Feb. 18.	Ripley, O.	Feb. 6
Feb. 19.	Ward's Island, N. Y.	Feb. 6
Feb. 19.	Hartford, Conn.	Feb. 6
Feb. 19.	Middle River, Minn.	Feb. 6
Feb. 19.	Buffalo, N. Y.	Feb. 6
Feb. 20.	Covington, Tenn.	Jan. 16
Feb. 20.	Easton, Md.	Feb. 6
Feb. 20.	Portland, Ore.	Feb. 6
Feb. 20.	Excelsior, Minn.	Feb. 6
Feb. 20.	Buffalo, N. Y.	Feb. 6
Feb. 23.	Hasbrouck Heights, N. J.	Feb. 6
Feb. 23.	Ithaca, N. Y. Adv. Feb. 6.	Feb. 6
Feb. 24.	Forest City, Ia.	Feb. 6
Feb. 27.	Miles City, Mont.	Jan. 9
Mar. 1.	Champion, O.	Jan. 9
Mar. 1.	Alliance, O.	Jan. 23
Mar. 6.	Lawton, Okla.	Jan. 9
Mar. 11.	Pittsburgh, Pa. Adv. Feb. 6.	Feb. 6
Mar. 15.	Fairmont, W. Va.	Feb. 6
Mar. 22.	Brattleboro, Vt.	Feb. 6
Mar. 25.	Pendleton, Ore.	Feb. 6

PRIVATE BUILDINGS.

Feb. 9.	Frankfort, Ky.	Jan. 30
Feb. 10.	Tocsin, Ind.	Feb. 6
Feb. 12.	Louisville, Ky.	Feb. 6
Feb. 15.	New Castle, Pa.	Jan. 9
Feb. 15.	Salem, Mass.	Jan. 23
Feb. 16.	State College, Pa.	Feb. 6
Feb. 25.	Detroit, Minn.	Jan. 30
Mar. 1.	Schenectady, N. Y.	Feb. 6
Mar. 25.	Wilmington, Del.	Jan. 9

NEW INDUSTRIAL PLANTS.

Feb. 17.	Seattle, Wash.	Jan. 30

MISCELLANEOUS.

Feb. 9.	Garbage Disposal, Shelton, Conn.	Jan. 23
Feb. 10.	Steel Dump Scows, Panama.	Jan. 9
Feb. 10.	Cement, Seattle, Wash.	Jan. 23
Feb. 10.	Crushed Stone, Boston, Mass.	Feb. 6
Feb. 10.	Cement, Cresco, Ia.	Feb. 6
Feb. 10.	Elevators, etc., San Francisco, Cal.	Feb.
Feb. 10.	Cement, Chicago, Ill.	Feb. 6
Feb. 11.	Steam Boiler, Middletown, O. Adv. Jan. 23, 30.	Jan. 23
Feb. 11.	Cement, Independence, Ia.	Feb. 6
Feb. 12.	Cement, Sigourney, Ia.	Feb. 6
Feb. 12.	Cement, Cleveland, O.	Feb. 6
Feb. 15.	Electric Light Plant, Butler, N. J. Adv. Jan. 30.	Jan. 30
Feb. 15.	Launch, New York, N. Y. Adv. Feb. 6.	Feb. 6
Feb. 15.	Boilers, Illinois	Feb. 6
Feb. 16.	Incinerator Plant, Toronto, Ont. Adv. Jan. 9.	Jan. 9
Feb. 16.	Tower Clock in U. S. Court House, Boston, Mass. Adv. Jan. 30, Feb. 6.	Jan. 30
Feb. 17.	Steel Rails, Etc., Melbourne, Australia	Jan. 9
Feb. 17.	Cement, Illinois	Feb. 6
Feb. 18.	El. Ry. Franchise, Santa Barbara, Cal.	Jan. 30
Feb. 18.	Structural Steel, Pipe, Etc., Panama	Feb. 6
Feb. 25.	Gas Franchise, Lake Charles, La. Adv. Jan. 30, Feb. 6.	Jan. 30
Feb. 25.	Elevator, Clarksdale, Miss.	Feb. 6
Feb. 27.	Steel Towers, Washington, D. C.	Jan. 9
Feb. 27.	Foundation for Radio Towers, Washington, D. C.	Jan. 30
Feb. 27.	Cranes, Norfolk, Va.	Feb. 6
Mar. 1.	Freight Lift, Kansas City, Kan.	Jan. 30
Mar. 6.	Street Cleaning, Joliet, Ill.	Jan. 23
Mar. 10.	Engines and Compressor, Ketchikan, Alaska	Feb. 6
Mar. 11.	Elevators, Etc., Pittsburgh, Pa.	Feb. 6
Mar. 13.	Foundation for Radio Tower, Washington, D. C.	Jan. 30
———	R. R. Equipment, Siam. Adv. Feb. 6.	Feb. 6

★*Items marked thus give the names of parties awarded contracts.*

New Construction Activities

Increased business in the steel market is directly reflected in an increase in output of 85,600 tons of pig iron for January over December last. Fourteen new furnaces were blown in last month, and two more have been put in operation since February 1, making a total of 162 furnaces now running. The mills of the United States Steel Corporation are now running at more than 55 per cent of capacity, against 34 per cent of capacity on the 1st of January. During the first week of February 70,000 ton of steel for export was sold. This large gain was partly due to the fact that several interests have chartered transportation facilities and are now independent of the general ocean freight situation. Orders for rails continue to come in in encouraging volume, and satisfactory specifications for delivery are being made against orders already placed. At least one contracting firm of national reputation continues to make money, the Great Lakes Dredge & Dock Company having recently declared an 8-per cent dividend.

Buildings

A number of building contracts for more than $100,000 were let during the past week. Among them was a contract for erecting five buildings for the Jewish Hospital in Cleveland to cost $400,000, and a contract for erecting a $600,000 grain elevator at Port Covington, Md. Bids are desired on four projects costing in excess of $100,000, the largest being a $300,000 club house at Chicago, and the others being noted under Philadelphia, Cleveland, and Greencastle, Pa. A permit for erecting a $200,000 elevator at Galveston, Texas has been issued. Plans for a $200,000 school have been prepared at Ottawa, Ill.

Bridges and Roads

There is a report that the contract for the second Narrows Bridge at Vancouver, B. C., has finally been awarded at a price of $1,744,000. This project has been planned for some time, and bids were asked on it last spring, though no award was ever made on that letting. A contract was awarded at Corpus Christi, Texas, at $165,000 for constructing a 1¾-mile causeway. A contract for paving work to cost $335,000 has been awarded at Baltimore. Bids on a $70,000 section of the California State highway were opened last week. New Orleans has sold $550,000 worth of paving bonds, and $180,000 worth of bonds for Louisiana road district No. 2 have also been sold. Utica, N. Y., will contract for paving work which will cost $120,000 this year. Although less paving work is noted this week than last, numerous smaller items will be found listed below.

Sewers and Waterworks

The lowest bid opened on Feb. 2 for constructing sewers in the Bronx, New York City, was for $349,222. Bids for the construction of a $150,000 sewer will shortly be received at Vancouver, B. C. The sewer program of Montreal, Que., is said to involve the expenditure of over a million dollars. Bonds for city improvements to the sum of $700,000 have been issued at Outremont, Que. Bids are desired on another contract for the Cleveland filtration plant. Plans have been approved for a water purification plant to cost $72,000 at Manhattan, Kan.

Miscellaneous

Bids are desired in New York on Feb. 26 for the construction of section 4 of routes 4 and 36, a part of the Broadway-Fourth Avenue Rapid Transit Railroad in Manhattan. Post & McCord, Inc., were low bidders on 13,000 tons of structural steel required for the elevated extension to the Brooklyn subway of the New York Municipal Railway Company. Two railroad extension projects are reported, one from Macon, Ga., and the other from Jackson, Miss. It is reported that a company has been formed at Buffalo to develop a terminal at Squaw Island, in the Niagara River, in connection with the Black Rock harbor improvement. Bids are desired in Boston for constructing section 8 of the Dorchester tunnel, which is about 2200 ft. long and is to be built in open cut. A number of new drainage projects are being proposed in the Mississippi Valley, and several contracts for drainage ditches have been awarded at Jackson, Minn.

WATERWORKS.

Items Arranged Geographically

Portland, Me.—Bids desired until Feb 15 by Trustees Portland Water Dist., 33 Plum St., for $200,000 water district bonds.

★**Boston, Mass.**—The Mayor on Feb. 4 approved contract with the Gibby Fdry. Co. for composition castings for the Water Service, at a total of $12,000. (Bids opened Jan. 20.)

Shrewsbury, Mass.—Geo. E. Stone, Town Clk., writes that it is proposed to construct water works, to include about 6 miles of pipe; no definite plans yet made; cost $70,000.

Westfield, Mass.—The Special Water Com. (J. S. Devine, Chmn.) has recommended that the town vote to construct a storage reservoir on Granville system of its water supply, this reservoir to be located at Junction site, dam to be of earthen construction, approximately 50 ft. high, to store about 200,000,000 gals. of water; estimated cost about $100,000.

Lyons, N. Y.—The Municipal Bd. has taken over the water works and will expend about $97,000 in extending the water mains, putting in new and larger pipes where necessary, and building a filter plant and a new pumping station.

Bids for constructing the above water works desired until Mar. 3 by the Municipal Bd. advertised in Engineering Record. J. F. Witmer & Co., Engrs., Dunn Bldg., Buffalo; H. F. Zimmerlin, City Clk.

Atlantic City, N. J.—Bids, including plans and specifications, desired until Feb. 25 by Bd. Comrs. for designing, furnishing, installing and testing one 18,000,000-gal. turbo centrifugal pump, with appurtenances, for the Absecon Pumping Station, advertised in Engineering Record. L. Van Gilder, Engr. and Supt. Water Dept.; Harry Bacharach, Dir. Parks & Pub. Property.

★**Anacostia, D. C.**—Contract has been awarded by the Dept. of Interior at Washington, D. C., to L. B. Jacobs, Newark, Del., at $14,750, for remodeling pumping plant at Government Hospital for Insane at Anacostia.

Gordonsville, Va.—Bids reported desired until Feb. 15 by W. H. Sindlinger, Chmn. Water Comm., for enlarging reservoir on Cameron's Mountain. About 1000 cu. yds concrete and 3000 cu. yds. earth will be required.

Southport, N. C.—Bids desired about Apr. 1 for the purchase of $45,000 bonds, to be used for the construction of water works and a sewer system, from plans of J. B. McCrary Co., of Atlanta, Ga.

Clearwater, Fla.—Bids desired until Feb. 17 by R. T. Daniel, Town Clk., for the following: Water works extensions, cost $8,000; sewer system, cost $18,000; storm drains, cost $5,000. J. N. Drew, Town Engr.

Lakeland, Fla.—Bids desired until Mar. 18 by C. D. Clough, Secy. Bd. Bond Trus., for $130,000 light and water bonds.

Contracting News

Of Special Interest to Engineers, Contractors, Builders and Manufacturers of Engineering and Building Supplies

Beloit, O.—Question of constructing water works reported under consideration. F. B. Crist, Village Clk.

Cleveland, O.—Bids desired until Feb. 24 by Commissioner Purchases and Supplies for constructing coagulant house superstructure and miscellaneous work in connection therewith, for Filtration Plant, Contr. 5.

East Liverpool, O.—City Council has adopted mechanical filtration for East Liverpool. and engaged Chester & Flemming, Pittsburgh, Pa., to prepare plans to include pumping station, standpipes and addition to distributing system.

East View, O.—Bids desired until Mar. 8 by Chas. E. Burger, Village Clk., at his office, 804-12 Marshall Bldg., Cleveland, for constructing 6-in. water mains in Chalfant, Daleford, Ardmore, Fernway, Kenmore and several other roads.

Euclid, O.—Bids desired until Mar. 8 by H. S. Dunlop, Village Clk., for furnishing material and constructing 10-in. water mains in Bliss, St. Clair and Upson Rds. F. A. Pease, Village Engr., Marshall Bldg., Cleveland.

Marion, O.—Permission is reported to have been granted to the Marion Water Co. to issue $60,000 bonds for construction and extension work.

Napoleon, O.—Press reports state that the Bd. of Pub. Affairs will employ an engineer Feb. 15 to prepare plans for a filtration plant.

Springfield, O.—New bids desired about Mar. 10 by Bldg. Comn. for Infirmary Buildings (Geo. McCord, Pres., 1533 N. Limeston St.) for furnishing material and installing well and cistern water supply by means of deep well and suction pumps and compression tanks at new County Infirmary buildings and laundry building, Bethel Township. Robt. C. Gotwald, Archt., Gotwald Bldg.

Yellow Springs, O.—Village Council reported to have decided to construct water works.

Youngstown, O.—Bids desired until Feb. 18 by Director Pub. Service (H. C. Fox, Clk.) for furnishing about 1000 tons c.-i. pipe and 50 tons special castings; also furnishing about 150 gate valves.

Ann Arbor, Mich.—Manley Osgood, City Engr., writes bids will be opened 7 p. m. Feb. 15 for a well, 16 ft. diam and about 23 ft. deep, and test pumping of same.

Grand Rapids, Mich.—Local press reports state that it is proposed to extend the high-pressure water main service in east end of city.

Bloomington, Ill. — City Council has passed ordinance for water mains on Linden, Longworth, Denver and Robinson Sts.; estimated cost $5,960.

Chicago, Ill.—Bids desired until Feb. 25 by L. E. McGann, Comr. Pub. Wks., for following quantities of water meters: 1500 ¾-in., 2000 1-in., 750 1½-in. and 750 2-in., advertised in Engineering Record.

Manhattan, Kan.—City Comrs. have approved plans, specifications and estimates for a water softening, purification and iron removal plant, extension of distributing system, increasing the supply, and cleaning the mains, as submitted by Fred Walters, City Engr., and Worley & Black, Consulting Engrs., of Kansas City, Mo., and the Comrs. instructed Chester Gist, City Clk., to submit plans to the State Pub. Utilities Comn. for approval and make application for authority to issue necessary bonds for the improvements. Estimated cost $72,500.

Fromberg, Mont.—City Council contemplates construction of water works, and it is reported will immediately employ an engineer to make preliminary surveys and estimates on both a pumping plant and a gravity system.

Harlowton, Mont.—City Engineer reported to have been instructed to prepare plans for extension to water works, to cost about $15,000.

St. Louis, Mo.—Bids desired until Feb. 19 by Wm. T. Findly, Secy. Bd. Pub. Service, for Letting 92, two 350 h.p. water tube boilers; Letting 93, 6 chain gate stokers; Letting 94, coal handling machinery, all at High Service Station No. 2.

Heber Springs, Ark.—Preliminary surveys being prepared for water works and a sewer system.

Redrock, Okla.—Citizens voted Jan. 28 to issue $22,000 bonds for constructing water works from plans of Benham Eng. Co., of Oklahoma City.

Seattle, Wash.—City Council has adopted resolutions for water mains in Shilshole Ave., from 24th Ave. to 45th St.; also in W. 49th St., from 17th Ave. to 14th Ave.

Bids reported desired until Mar. 15 by J. B. Cavanaugh, Burke Bldg., for 2 30-in. and one 10-in. and one 2½-in. electric pumps. Probable cost $30,000.

Los Angeles, Cal.—Bids reported desired until Mar. 9 by Dept. Pub. Service (Jas. P. Vroman, Secy) for furnishing water meters with connections and bronze water meter connections.

Montreal, Que.—City Council on Feb. 1 voted an appropriation of $100,000 to be used for laying water pipe throughout city.

Outremont, Que.—Bids desired by Mayor Jos. Beaubien until Feb. 18 for purchase of $700,000 bonds to be used for construction of sewers, permanent sidewalks, to open, build, macadamize, pave or otherwise improve roads, pay for land required for same; lay water mains; construct and equip underground conduit and extend lighting system of town; remove poles and overhead lines, and erect same in lanes, private property, etc.; improve public parks and playgrounds; extend municipal building, yards, etc.; for erection and equipment of incinerator plant, a new fire station, and for planning and constructing a model residence. J. Duchastel, Town Engr.

Dunnville, Ont.—Council is reported to have approved the by-law providing for an issue of $12,000 water bonds.

Ottawa, Ont.—Bids desired until Feb. 23 by Chairman Water Wks. Com. for furnishing and delivering brasswork, special pipe castings, c.-i. pipe, valves, etc. F. C Askwith, City Engr.

Toronto, Ont.—Bids desired until Mar. 2 by T. L. Church (Mayor), Chmn. Bd. Control, for furnishing and delivering 24, 30 and 36-in. stop valves and a 36-in. check valve.

Assiniboia, Sask.—Press reports state that Ward 4 of Assiniboia will probably construct water works to cost $90,000.

★**West Vancouver, B. C.**—Contract reported awarded to The Vancouver Plumbing & Heating Co., Dominion Bldg., Vancouver, for constructing Sisters Creek water supply system, at $98,612.

SEWERAGE AND SEWAGE DISPOSAL.

Items Arranged Geographically

★**Boston, Mass.** — Contract has been awarded by Bd. Pub. Wks. for cleaning catch basins (bids opened Jan. 18) as follows: Division 1 to John W. Collins, $9,500; Divisions 2 and 3 to Mark H. Lynch, at $7,700 and $6,925 respectively.

Malden, Mass.—City Council has passed ordinance providing for an issue of $30,000 bonds for sewer construction.

★*Items marked thus give the names of parties awarded contracts.*

New York, N. Y.—Following are 4 lowest bids opened by Douglas Mathewson, Pres. Boro. Bronx, Feb. 2, for constructing sewers and appurtenances in Pennyfield Ave., Chaffee Ave. and Throgs Neck Boule., with overflows to East River and Long Island Sound: (a) J. L. Sigretto & Co., Woodhaven, L. I., N. Y., $349,222; (b) Litchfield Constr. Co., Webster Ave., Bronx, $366,282; (c) Rodgers & Hagerty, Inc., 152d St. and Hudson River, $379,211; (d) Hanover Constr. Co., 271 W. 125th St., $386,012.

	(a)	(b)	(c)	(d)
Concrete Sewer:				
965 lin. ft. 11 ft. 3 in. x 6 ft. 6 in.	$26.00	$27.63	$37.24	$24.00
741 lin. ft. 10 ft. 3 in. x 6 ft. 6 in.	25.00	32.17	26.15	35.00
790 lin. ft. 9 ft. 6 in. x 6 ft. 6 in.	24.00	23.10	31.60	20.00
1,605 lin. ft. 8 ft. 9 in. x 6 ft. 6 in.	20.00	25.82	23.30	24.00
810 lin. ft. 8 ft. 3 in. x 6 ft. 6 in.	19.39	21.15	26.60	17.00
275 lin. ft. 8 ft. x 6 ft. 6 in.	48.00	27.90	26.45	35.00
590 lin. ft. 7 ft. 9 in. x 6 ft. 6 in.	18.00	20.06	20.00	17.20
827 lin. ft. 7 ft. 3 in. x 6 ft. 6 in.	18.00	23.03	18.65	20.00
148 lin. ft. 7 ft. x 6 ft. 6 in.	48.00	15.27	25.35	20.00
565 lin. ft. 6 ft. 9 in. x 6 ft. 6 in.	15.83	20.82	26.40	15.40
2,132 lin. ft. 6 ft. 3 in. x 6 ft. 6 in.	20.00	21.51	15.65	20.00
615 lin. ft. 5 ft. 9 in. x 6 ft. 6 in.	18.00	20.00	16.05	18.30
1,519 lin. ft. 5 ft. 6 in. x 6 ft. 6 in.	23.00	23.66	15.35	20.00
35 lin. ft. 4 ft. 9 in. diam.	10.00	8.00	20.65	20.00
35 lin. ft. 4 ft. 6 in. diam.	6.50	8.00	10.40	10.00
36 lin. ft. 45 in. x 60 in.	8.00	8.00	15.25	14.00
75 lin. ft. 34 in. x 46 in.	6.00	7.00	7.45	6.00
112 lin. ft. 32 in. x 44 in.	6.00	7.00	7.85	7.00
68 lin. ft. 29 in. x 40 in.	5.00	7.00	5.95	5.00
Vitr. Pipe Sewer:				
138 lin. ft. 30 in.	5.00	6.50	7.65	6.00
74 lin. ft. 24 in.	4.00	4.50	4.70	4.00
74 lin. ft. 20 in.	4.00	4.00	3.95	4.00
72 lin. ft. 18 in.	3.25	3.90	3.10	2.00
146 lin. ft. 15 in.	3.25	3.60	3.75	2.50
254 lin. ft. 12 in.	2.25	3.00	3.50	3.50
500 lin. ft. 12 in. to 24 in.	2.30	.01	.01	2.00
1,415 spurs for house connections	.45	.40	1.00	.50
3,050 lin. ft. risers	1.50	.90	1.25	1.50
99 manholes	50.00	41.00	95.00	50.00
5,500 sq. yds. slope pavt.	.75	1.00	.50	1.00
1,500 cu. yds. rock excav.	3.25	.01	3.00	3.00
1,700 cu. yds. concrete, Class B	4.75	4.75	7.00	8.00
50 cu. yds. concrete, Class C	5.00	6.00	8.00	8.00
450 cu. yds. stone ballast	1.25	1.50	2.50	3.00
170,000 lbs. steel reinforcement	.02¼	.02	.03	.03
135 B. M. ft. timber	35.00	32.00	40.00	50.00
115 B. M. ft. timber sheeting	.01	26.00	.01	30.00
135,000 lin. ft. piles	.25	.25	.30	.35
1 overflow, Chamber A	2,400.00	3,000.00	2,725.00	4,000.00
1 overflow, Chamber B	2,400.00	3,000.00	3,400.00	3,500.00

Brooklyn, N. Y.—Bids desired until Feb. 17 by L. H. Pounds, Boro. Pres., for constructing sewers in De Kalb Ave. and Skillman St., requiring 556 lin. ft. 48 in., 1041 lin. ft. 42 in. sewer, etc. Engineer's preliminary estimate, $21,631; also constructing 7 sewer basins in several streets. Engineer's preliminary estimate, $845. Bids desired same time and place as above for furnishing and installing a plant for purpose of removing suspended solids from the ordinary dry weather flow of sewage at the 26th Ward Disposal Works, Hendrix St. and Vandalia Ave., in accordance with one of the three methods and designs for removing suspended solids shown on plans of the works. Security $10,000.

Brooklyn, N. Y.—The Public Service Comn., 154 Nassau St., New York, desires bids until Feb. 26 for removal of the temporary sewers from easterly track of 4th Ave. subway, in Brooklyn, between Hanson Pl. and Butler St.

Lyons, N. Y.—Bids desired until Mar. 3 by Municipal Bd. for constructing a sewer system and disposal plant, advertised in Engineering Record. Probable cost $91,000. J. F. Witmer & Co., Engrs., Dunn Bldg., Buffalo; H. F. Zimmerlin, Village Clk.

Mt. Morris, N. Y.—Bids desired until Feb. 26 by Municipal Village Bd. for constructing about 9 miles of pipe sewers and disposal works with appurtenances, advertised in Engineering Record. C. C. Hopkins, Engr., 349 Cutler Bldg., Rochester. R. W. White, Chmn. Bd.

Yonkers, N. Y.—Bids desired until Feb. 15 by Bd. Contract & Supply (Edw. P. Walsh, Secy.) for constructing a sewer in portions of Prescott St. and Vineyard Ave.

Camden, N. J.—City Council Jan. 28, took steps looking to the construction of a sewage disposal plant, when a resolution was adopted instructing Street Commissioner Sayers and City Engineer Farnham, to install a temporary plant on city property at Cooper River, to demonstrate a scheme of Street Commissioner Sayer by which sewage can be disposed of expeditiously. The plans have the sanction of State Board of Health.

Newark, N. J.—Following are totals of bids opened Feb. 9 by Passaic Valley Sewerage Comrs. (John S. Gibson, Clk.) for constructing northerly portion of Sect. 8, main intercepting sewer in city of Newark, work to include tunnel method excav. and open trench method for 135 in. circular concrete sewer: (a) tunnel method; (b) open trench method: Oscar Daniels Co., New York, (a) $297,800, (b) $269,637; Arthur McMullen, New York, (a) $320,350, (b) $319,195; Chas. A. Haskin, Boston, Mass., (a) $328,548; Booth & Flinn, Ltd., New York, (a) $330,114; Mason & Hanger Co., New York, (a) $344,760, (b) $236,680; Dock Contractor Co., Hoboken (a) $347,712; N. Y. & N. J. Constr. Co., Newark, (b) $288,160; Culp Co., Inc., Paterson, (b) $291,111; Newark Paving Co., Newark, (b) $294,221.

Allentown, Pa.—Chas. S. Miles, of Wilkes-Barre, Engr. of Luzerne County, has been engaged to make a survey of city and report on the cost and feasibility of Kline's Island in the Lehigh River in lower section of city as site for sewage disposal plant.

Pennsylvania. — The State Dept. of Health at Harrisburg is reported to have approved plans as follows: Sewage disposal plant at Slippery Rock State Normal School, and improvement of sewer systems and disposal plants in Titusville, Pa.; Vandergrift, Pa.; also sewer improvements in Youngsville, Pa., and Johnsonburg, Pa.

Reading, Pa.—Local press reports state that the city will spend $50,000 for another house sewage filtration unit on Fritz Island below Millmont.

Troy, Pa.—Borough Council reported to have decided to construct a sewer system, to cost $24,000. Engineer, Henry W. Taylor, of Albany, N. Y.

Arlington, Md.—Greiner & Whitman, Room 1319, Fidelity Bldg., Baltimore, are engineers for the proposed sewer system.

Southport, N. C.—See "Water Works."

Lafayette, Ga.—The J. B. McCrary Co., Engrs., Atlanta, are reported to have made proposition to city for the construction of a sewer system.

Clearwater, Fla.—See "Water Works."

Miami, Fla.—Plans are reported completed for sewering district lying north of city cemetery. B. H. Klyce, City Engr.

Cincinnati, O.—Bids desired until Feb. 17 by Director Pub. Service (Parke S. Johnson, Secy.) for constructing sewers in ravine east of Reading Rd. (Avondale Relief Sewers, Contr. No. 3.)

Cleveland, O.—Bids desired until Feb. 18 by Commissioner Purchases and Supplies for constructing sewers, sewer connections and overflows at W. 58th St. and Edgewater Boule.

East View, O.—Bids desired until Mar. 8 by Chas. E. Burger, Village Clk., at his office, 804-12 Marshall Bldg., Cleveland, for constructing storm and sanitary sewers in portions of Chalfont, Daleford, Ardmore, Fernway, Kenmore and several other roads.

Lodi, O.—Bids desired until Feb. 16 by G. C. Rice, Village Clk., for furnishing material and constructing sanitary sewerage system and sewage disposal plant. The sewerage system includes about 6 miles pipe from 4 to 12 in. in diam., with some 60 manholes and 19 flush tanks. The sewage disposal plant includes a small settling tank, dosing appliance and sand filtration area. L. E. Chapin, Engr., Frick Bldg., Pittsburgh, Pa.

Detroit, Mich.—Bids desired until Feb. 23 by Dept. Parks and Boulevards (H. W. Busch, Secy.) for installing a sewerage system on Belle Isle Park, to include sewers and manholes, treating plant, liquid chlorine disinfectant apparatus and pumping plant.

Averyville, Ill.—The question of constructing the proposed sewer system, is reported to be again under consideration by Village Council.

Duluth, Minn.—See "Paving and Roadmaking."

★**Sandstone, Minn.**—Contract has been awarded for constructing sewer system consisting of 8605 ft. 6, 8 and 10 in. pipe and 34 manholes, to Chas. Eklund & Co., of Duluth; cost about $7,000 (bids opened Jan. 18).

Valley Falls, Kan.—We are informed that no bids were opened by Geo. Harman, City Clk., Feby. 1 for furnishing material and constructing lateral sewers in city, main sewers inside and outside city and a sewage disposal plant, being held up by an injunction. Will not be able to open bids for about 4 weeks.

Sisseton, S. D.—Bids desired Mar. 2 for 6 miles of sewers and sewage treatment plant, from plans of Dakota Eng. Co., of Mitchell.

Butte, Mont.—Sewer Council reported to have decided to recommend construction of a storm and sanitary sewer system on the flat, to cost $130,000.

Springfield, Mo.—Bids reported desired until Mar. 1 by City Council for constructing 2 district sewers: First section requires 13,000 ft. 8 and 10-in. vitr. pipe. Second section requires 9495 ft. 8-in. vitr. pipe, 27 manholes, 6 flush tanks, etc. Approximate cost, $17,000 and $12,000, respectively. S. R. Fisher, City Engr.

Harrison, Ark.—Albert C. Moore, of Joplin, Mo., reported to have completed surveys for a sewer system.

Heber Springs, Ark. — See "Water Works."

Tacoma, Wash.—City Engineer has been authorized to prepare plans for construction of sanitary sewers on A and B Sts., between Wright Ave. and 40th St., about ¾ of a mile; cost about $20,000.

★**Astoria, Ore.** — Contract reported awarded to the Washington Brick, Lime & Sewer Pipe Co., Spokane, Wash., at $20,000, for furnishing 4 to 30-in. sewer pipe to be used in a 5-mile trunk sewer being constructed in Astoria by K. Sauset, Contractor, of Bellingham, Wash.

McMinnville, Ore.—City Council reported to have passed ordinance providing for construction of $12,500 sewer on Balm St.

Santa Monica, Cal.—Preliminary plans have been prepared for a storm sewer system, and an election will soon be held to vote on issuing bonds for construction. John A. Morton, City Engr.

★**South Pasadena, Cal.**—Contract for constructing a portion of the sewer system has been awarded to Watson & Spicer, Wright & Callender Bldg., Los Angeles; they bid $31,639 if vitr. pipe is used, or $33,215 if cement pipe is used. John MacMillan, City Engr.

Lewiston, Idaho.—Plans reported completed by City Engineer for a $15,000 addition to the sewer system.

Lewistown, Idaho.—City Engineer reported to be preparing plans for constructing 10 or 12 blocks of lateral sewers: bids desired about Feb. 25; cost about $15,000.

Montreal, Que.—City Council will be asked to appropriate $1,039,000 for construction of sewers.

Outremont, Que.—See "Water Works."

Toronto, Ont.—Bids desired until Feb. 16 by T. L. Church (Mayor), Chmn. Bd. Control, for constructing sewers in Ivy, Kiswick and St. Clair Aves., Harriett and Smith Sts.

North Vancouver, B. C.—City Engineer has been authorized to prepare plans for construction of sewers on 10th St.; cost about $16,000.

Vancouver, B. C.—The Vancouver & District Joint Sewerage and Drainage Bd. reported to have decided to let by contract construction of the Clark Drive sewer, at an estimated cost of $150,000, and bids for construction will be received about Mar. 1.

BRIDGES.

Items Arranged Geographically

Concord, N. H.—Bd. Aldermen voted an appropriation of $60,000 to construct bridges replacing Federal, Main St., Penacook, Sewall's Falls and Borough bridges.

Cumberland, R. I.—Bids desired until Mar. 15 by Esten & Black, Engrs., 18 East Ave., Pawtucket, for constructing a 3-span reinforced concrete arch bridge across Blackstone River between the city of Central Falls and the town of Cumberland, advertised in Engineering Record.

Middletown, Conn. — Construction of 6-ft. walk on side of Middletown Portland drawbridge reported being considered by county, estimated cost $15,000.

Rochester, N. Y.—Council has passed a final ordinance of $17,000 for repairing Driving Park Ave. Bridge.

Long Branch, N. J.—Monmouth County Bd. Freeholders at Freehold voted to construct concrete bridge 225 ft. long to replace Hurley Bridge on Glendola Rd. in Wall Township.

Philadelphia, Pa.—Philadelphia & Camden Bridge & Terminal Co. were incorporated at Trenton Feb. 4, with capital of $125,000, to construct a bridge over Delaware River between Camden and Philadelphia. Company's office is at 304 Market St., Camden.

Bids desired until Feb. 25 by M. L. Cooke, Dir. Dept. Pub. Wks., Room 216, City Hall, for constructing a concrete bridge and its approaches to carry Broad St. over the joint four-walk railroad, South Philadelphia. Track Elevation Contract No. 201, advertised in Engineering Record.

★**Parkersburg, W. Va.**—Contract for 2200 tons steel shapes for Parkersburg-Ohio Bridge has been awarded to American Bridge Co., Pittsburgh, Pa.

Jacksonville, Fla. — Construction of bridge over Hogan's Creek at Orange and Liberty Sts., is being considered by City Council, cost about $20,000.

Clinton, Tenn.—We are informed that the 3 bridges to be constructed by the County over Clinch River will be of steel or concrete, each 300 ft. long, 18 ft. wide; cost $20,000 each. C. J. Sawyer, Chmn. Bridge Com.

Mobile, Ala.—Bids desired until Feb. 23 by City Comrs. for constructing approximately 1865 ft. of reinforced concrete culverts, 4½ ft. x 10 and 12 ft., advertised in Engineering Record. Appropriation $10,000. Wright Smith, City Engr.; H. Phillans, Mayor.

Monticello, Ind.—We are informed that the proposed bridge to be constructed at Springboro, will be of steel on concrete foundation, have 4 spans and cost $30,000. For further information address County Auditor, Monticello.

★**Nevada, Ia.**—Contract awarded Jan. 29 for constructing 191 reinforced concrete bridges and culverts to Paul N. Kingsley, of Strawberry Point, at $34,822. Other bids: Cole Bros., Ames, $36,300; J. W. Hopp Constr. Co., Cedar Rapids, $41,403; Boone Constr. Co., Boone, $41,900; L. B. Child, Nevada, $37,108. F. E. King, Co. Aud.

Mora, Minn.—Bids desired until Feb. 16 by A. V. Sander, County Aud., for constructing 3 bridges as follows: State Bridge No. 1607, on State Road No. 2, Town of Peace, superstructure, 90 ft. truss span, 18 ft. roadway, concrete floor on reinforced concrete abutments; State Bridge No. 1608, on State Road No. 5, town of Southfork, superstructure, 40 ft. truss span, 18 ft. roadway, concrete floor on mass concrete foundation. State Bridge 1632, State Road No. 2, town of Brunswick, superstructure, two 75 ft. truss spans, 18 ft. roadway, concrete floor on reinforced concrete abutments and pedestal pier.

★**Corpus Christi, Tex.**—Contract reported awarded to W. L. Pearson & Co., of Houston, to build causeway across mouth of Nueces Bay between Corpus Christi and Portland. Length of bridge will be 1¾ mile, with a width of 19 ft. inside of curbing. Cost $165,000.

Grand Junction, Colo.—Following are 4 lowest bids opened Jan. 25 by J. H. Miner, Project Mgr., U. S. Reclamation Service, Grand Junction, for furnishing 7 steel service bridges from Grand River Diversion Dam, Grand Valley Project, Colo.; estimated weight 45 tons (price given per cwt.): Penn Bridge Co., Beaver Falls, Pa., $2.74, 60 days; Central States Bridge Co., Indianapolis, Ind., $2.77, 45 days; Des Moines Bridge & Iron Wks., Des Moines, Ia., $2.80, 45 days; Chicago Bridge & Iron Co., Washington Heights, Ill., $2.95, 60 days.

Montrose, Colo.—Bids desired until Feb. 17 by U. S. Reclamation Service, Montrose (F. D. Pyle, Project Engr.), for furnishing, erecting and painting 4 plate girder spans of 70 ft. each for the West Canal head works, crossing over the Uncompahgre River, Uncompahgre Project.

Renton, Wash.—Bids reported desired until Feb. 25 by County Comrs., Seattle (M. J. Carrigan, Chmn.), for constructing 120-ft. span steel bridge over Duwamish River at Renton. Probable cost $20,000.

★**Seattle, Wash.** — Contract for constructing bridge on extension of 14th Ave. South awarded by King County Comrs. to Manhattan Contr. Co., Central Bldg., at $19,475.

Spokane, Wash.—Bids reported opened about Feb. 27 for constructing reinforced concrete bridge at Nine Mile across Spokane River. Probable cost $25,000.

Ottawa, Ont.—No bids were opened Jan. 28 by Secretary Bd. Control for constructing substructure of Pretoria Ave. direct lift bridge, and the matter has been indefinitely postponed. F. C. Askwith, Acting City Engr.

North Vancouver, B. C.—Bonds in the sum of $30,000 reported voted for bridge construction, and $30,000 for street work.

★**Vancouver, B. C.**—Contract for constructing Second Narrows Bridge for Burrard Inlet Tunnel & Bridge Co. was awarded Feb. 1 to C. A. P. Turner, Minneapolis, Minn., and Western Foundation Co., Milwaukee, Wis., at $1,744,831.

PAVING AND ROADS.

Items Arranged Geographically

Lee, Mass.—Bd. Selectmen reported considering constructing bridge and road between Lee and South Lee, cost about $35,000.

★**Providence, R. I.**—Common Council recommends for award contracts as follows: With asphalt, Broad St., to Narragansett Improvement Co., at $111,373, and with bitulithic Messer and Knight Sts., to Warren Bros., at $19,631 and $15,568.

Endicott, N. Y.—Bids desired until Feb. 16 by Howard Barker, Village Clk., for $20,000 Washington Ave. paving bonds.

New York, N. Y.—Bids desired until Feb. 17 by Douglas Mathewson, Pres. Boro. Bronx, for repairing block asphalt pavement and setting curb where necessary, together with work incidental thereto.

★*Items marked thus give the names of parties awarded contracts.*

requiring in all 3000 sq. yds. completed asphalt block pavement, including asphalt pitch filler, mortar bed and concrete foundation; 6400 sq. yds. completed asphalt block pavement, including asphalt pitch filler and mortar bed on present foundation; 350 lin. ft. curbstone reset in concrete, including concrete foundation. Security $9,500.

Lowest bid opened Feb. 2 by President Bronx Boro. for paving with sheet asphalt on concrete foundation Jackson Ave., from E. 141st St. to E. 149th St., was submitted by Uvalde Contr. Co., as follows: 8660 sq. yds. sheet asphalt pavt. (medium traffic mixture) and keep pavt. in repair for 5 yrs. from date of acceptance, 78 cts.; 1715 cu. yds. Class B concrete, $4.50; 1100 lin. ft. new curb, 85 cts.; 3600 lin. ft. old curb, 40 cts.; total $16,847. Other bids: Cleveland Trinidad Paving Co., $18,130; Barber Asphalt Paving Co., $17,793; Asphalt Constr. Co., $17,558, and Sicilian Asphalt Paving Co., $18,279.

Lowest bid opened same time as above for regulating, grading, setting curb, flagging sidewalks, etc., in Tyndall Ave., Bronx Boro., submitted by P. Di Menna Contr. Co., as follows: 4700 cu. yds. earth excav., 30 cts.; 11,500 cu. yds. rock excav., $1.10; 2080 lin. ft. new curb, 80 cts.; 4410 sq. ft. new bluestone flag, 25 cts.; 4810 sq. ft. concrete sidewalk, 16 cts.; 450 sq. ft. new bridgestone, 50 cts.; 100 lin. ft. 12-in. vitr. pipe, $1; 975 lin. ft. guard rail, 30 cts.; total $18,914. Next 3 lowest bids: N. Di Menna, $23,169; M. Di Menna Contr. Co., $23,591; Marone Contr. Co., $23,932.

Lowest bid opened Feb. 4 by Marcus M. Mark, Pres. Manhattan Boro., for regulating and regrading W. 155th St., from Bway. to Riverside Drive, with the widening of Riverside Drive on the easterly side of its junction with W. 155th St., was submitted by Michael Di Menna Constr. Co., 2412 Hughes Ave., Bronx, as follows: 2940 cu. yds. earth excav., 50 cts.; 10 cu. yds. rock excav., $9; 600 cu. yds. excav. in test trenches, $1; 2700 cu. yds. fill, 1 ct.; 900 lin. ft., 7 in. granite curbstone, $1.25; 250 lin. ft. 5 in. bluestone curbstone, $1; 550 lin. ft. old bluestone curb redressed, 10 cts.; 100 sq. ft. new bluestone flag, 30 cts.; 800 sq. ft. old flag, 1 ct.; 10,650 sq. ft. concrete sidewalk Class A, 12 cts.; 205 cu. yds. dry rubble masonry, 1 ct.; 130 cu. yds. Class A concrete, $12; 2500 cu. yds. Class B concrete, $5; 40 lin. ft. 12 in. vitr. pipe, 50 cts.; 5 M ft. timber, $5; 2 receiving basins type standard, $100; 210 cu. yds. rough ashlar masonry, $7; 135 cu. yds. finished ashlar masonry, $9; 400 lin. ft. old granite curb redressed, 10 cts.; 16,000 lbs. reinforcing bars, 3 cts.; 200 lin. ft. wrought iron fence, $1; 150 lin. ft. 4 in. wrought iron pipe, 50 cts.; 5 lamp posts special standard on walls, $50; 1 lamp post Bishop Crook design, $50; 1 electric lighting system complete, including connections and appliances, $600; 3 lamp posts reset, $10; total, $23,830. Other bids: Henry E. Fox Constr. Co., 81 E. 125th St., $35,020; Nicholas Di Menna, 2326 Cambrelling Ave., Bronx, $36,117; Rosenthal Eng. & Contr. Co., Brooklyn, $37,131, and Harry Britton, Richmond Hill, L. I., $37,618.

★The board of Estimate and Apportionment has approved award of contract for paving northern section of Riverside Drive, with Bermudez asphaltic concrete. The bids for this work were opened Dec. 3 by Park Bd. and the work was let to the Asphalt Constr. Co., 208 Bway., at a total of $97,044. The Drive is now paved with Bermudez asphaltic concrete from 72d to 114th St., laid by the Barber Asphalt Paving Co. in 1913. The contract just awarded will complete the Drive to the Viaduct at 130th St., beyond Grant's tomb.

Oneonta, N. Y.—Bids reported desired until Feb. 17 for 37,000 yds. bituminous macadam. F. Gurney, City Engr.

Utica, N. Y.—The Bd. of Contract and Supply (W. W. Briggs, Secy.) will this year let contract for paving at a total cost of about $120,000.

Wilkes-Barre, Pa.—Bids desired until Mar. 2 by F. H. Gates, City Clk., for furnishing and delivering f.o.b. cars, about 40,000 gals. road oil.

Bids desired until Mar. 12 same place as above for curbing and paving streets. Bids to be submitted as follows: Sheet asphalt in 2 sections, totaling about 40,000 sq. yds.; vitr. brick in 4 sections, totaling about 46,000 sq. yds.; cobblestone in one section, 600 sq. yds.; vitr. brick and macadam in one section, 7500 sq. yds. together with necessary blue stone, red stone or concrete curbing. B. K. Finch, City Engr.

★**Baltimore, Md.**—Contracts for paving portions of Carey, Greene, Dolphin Sts., Edmondson Ave., etc., has been awarded by Bd. Awards to Baltimore Asphalt Block & Tile Co., at $335,000.

★Contract for paving with sheet asphalt Baltimore and other streets in East Baltimore have been awarded by Paving Comn. to American Paving Co., at $1.65 per sq. yd.

★**Washington, D. C.**—R. M. Reese, Chmn. Bd. Awards, Dept. of Agriculture, writes that contracts have been awarded for furnishing and delivering at Arlington Farms the following (bids opened Jan. 26): For oil asphalt, 41,500 gals., to U. S. Asphalt & Refining Co., 90 West St., New York, at $2,619; for fluxed native asphalt, 41,500 gals., Barber Asphalt Paving Co., 1900 Land Title Bldg., Philadelphia, Pa., $5,206, and for refined tar, 4000 gals., Barrett Mfg. Co., 1205 Land Title Bldg., Philadelphia, Pa., at $400.

Marshall, N. C.—The County Comrs. have just sold $150,000 bonds for road improvements. J. B. Clingman, Co. Road Engr.

Baton Rouge, La.—The Police Jury sold about $180,000 District No. 2 road bonds.

Mansfield, La.—New bids desired until Feb. 15, Jos. B. Elam, Mayor, for approximately 4½ miles concrete sidewalks.

New Orleans, La.—About $550,000 paving bonds have been sold by Commission Council.

Starkville, Miss.—Bids desired until Mar. 1 by Bd. Superv. for $130,000 road improvement bonds, advertised in Engineering Record. E. O. McIlwain, Chancery Clk.

Somerset, Ky.—Comrs. Pulaski County will construct pike connecting Wayne County and Lincoln County, cost about $41,000.

Bexley, O.—Chester A. Miller, City Clk., writes this city will spend $150,000 to $200,000 for street improvements. Engineers, Jennings, Lawrence & Lindsey, Deshler Blk., Columbus.

Cleveland, O.—Bids desired until Feb. 17 by Commissioner Purchases and Supplies, for grading, draining, curbing and paving with brick portions of Mayfield and Crawford Rd., Empire Ave., E. 68th, E. 107th, E. 152d and a number of other streets. Robt. Hoffman, Comr. and Ch. Engr.

East View, O.—Bids desired until Mar. 8 by Chas. E. Burger, Village Clk., at his office, 804-12 Marshall Bldg., Cleveland, for grading, curbing and paving with brick, concrete, asphalt or bituminous macadam, and constructing sidewalks in Chalfont, Daleford, Ardmore, Fernway, Kenmore and several other roads.

Fremont, O.—Ballville Township Trus. have sold $10,000 road improvement bonds.

Springfield, O.—City Council has passed ordinance providing for paving S. Main St., from Water St. to Powell Ave.

Upper Sandusky, O.—Bids reported desired until Mar. 1 by County Commissioners for constructing 15 miles water bound macadam. J. Megurat, Co. Aud.

Troy, O.—Bids desired by Henry J. Beck, Dir. Pub. Service, until Feb. 17 for improvement of Elm St. to include the following: 3000 sq. ft. sidewalk; 3380 lin. ft. cement curb with curb bars; 280 lin. ft. header curb; 1050 lin. ft. 10-in., 380 lin. ft. 12-in. and 450 lin. ft. 15-in. sewer; 4000 lin. ft. I Elastite Joint or its equal and 6000 sq. yds. of brick pav.; cost $15,801.

Zanesville, O.—Bids desired until Feb. 23 by County Comrs. (F. C. Werner, Clk.) for furnishing material and constructing steel superstructure over canal tow-path, Cass Township, known as the Graham Bridge, single span, 51 ft. c. to c., 12 ft. clear roadway. The floor shall be 3-in. oak plank.

★**Crawfordsville, Ind.**—Contracts awarded by Co. Comrs. for constructing 2 roads in Union Township as follows: To D. L. Reichard, of Crawsfordville, for Fleming Road, at $25,389, and to Wm. Mahoney, of Lafayette, Ind., for A. L. Simpson Road, at $11,333.

★**Valparaiso, Ind.** — Contract awarded Feb. 1 by County Comrs. (C. A. Blachly, Aud.) for constructing 3 roads to Roy Demass, of Chesterton, at $11,999.

Vincennes, Ind.—Bd. Wks. voted to pave portion Broadway, cost about $12,500.

Moline, Ill.—Council has passed ordinance providing for paving 25th St., from 7th to 11th Ave., with brick; 5670 sq. yds. on present macadam base, cement fill; no new curb.

Bd. of Local Improv. has passed resolution for paving 19th Ave., from 1st to 16th St., with asphalt, 24,700 sq. yds.; concrete curb and gutter, concrete base; estimated cost $75,780.

★**Oakland, Ill.**—Following are bids opened Feb. 2 for paving in Washington Paving Dist. from plans of Claude L. James, of Mattoon: (a) C. A. Michael, Mattoon (awarded contract); (b) P. J. Goggin, Arcola, Ill.; (c) Alan J. Parish, Paris, Ill.

	*(a)	(b)	(c)
14,389 sq. yds. brick pav.	$1.59	$1.64½	$1.65
9,250 lin. ft. curb and gutter	.49	.50	.51
527 lin. ft. marginal curb	.18	.20	.20
10,070 cu. yds. excav.	.27	.36	.30
1,570 lin. ft. 10-in. sewer pipe	.40	.30	.30
20 inlets	8.00	8.00	8.00

Peoria, Ill.—Bd. Local Improvements voted to pave with brick Stanley St.

Wisconsin.—Plans are being prepared and are practically ready for the following improvements under the State Aid Law of the State of Wisconsin (A. R. Hirst, State Highway Comr., Madison, Wis.):

Washington County, City of West Bend, paving Main St. with concrete, width 46 ft.; total of 16,355 sq. yds., and also 5575 lin. ft. combination curb and gutter. This work is to be contract, and bids will be called for in very near future by Washington County and the city named.

Washington County, Village of Jackson, paving with asphaltic macadam; total of 8216 sq. yds.; to be let by contract. Bids will be called for by County Highway Comr. in near future, work to be performed this coming spring.

Outagamie County, City of Kaukauna, Lawe St. to be paved with 36 ft. concrete; total of 10,553 sq. yds. Work to be let by contract, and bids will be called for by the City Clerk and County Highway Commissioner in near future.

The above work will total $38,000 for concrete work and about $5,000 for macadam.

Cedar Falls, Ia.—Bids reported desired until Feb. 17 by City Council for improving a number of streets. C. H. Streeter, City Clk.

Independence, Ia.—Bids reported desired until Feb. 19 by E. A. Bordner, Co. Aud., for furnishing from 12 to 24-in. corrugated and sheet metal culvert pipe during 1915.

Iowa Falls, Ia.—It is proposed to pave Stevens, River and Cedar Sts. with concrete, asphalt or brick on concrete foundation with 5000 ft. concrete curb and gutter 5 to 18 in. J. H. Farrington, City Engr.

Duluth, Minn.—City Commission on Jan. 25 passed ordinance providing for an appropriation of $12,000 for the purchase of road machinery; also for paving Commonwealth Ave. in Gary and construction of several sanitary sewers in various sections of city.

Plans have been prepared for paving Woodland Ave., at an estimated cost of $30,848 if sandstone is used or $25,000 for asphalt, $24,800 for bitulithic, $22,840 for concrete, $23,500 for bituminous concrete or $14,865 for macadam; also for paving T. 9th St. with macadam; estimated cost $31,434. John Wilson, City Engr.

St. Paul, Minn.—Council Feb. 4 decided to pave Isabel, Concord and Congress Sts. with asphalt concrete the coming summer; estimated cost $32,266.

Nebraska City, Neb.—Bids reported desired until Feb. 16 by County Clerk for bridge construction during 1915.

Nelson, Neb.—Bids reported desired until Mar. 3 by F. E. Hedgcock, County Clk., for bridge construction in 1915.

Superior, Neb.—A State Aid bridge is to be constructed at Superior, to have concrete arches and spans, two 50 ft. 2 of 55 ft., one 60 ft. concrete piers and abutments. D. D. Price, State Engr., Lincoln.

Vermilion, S. D.—Bids reported desired until Feb. 16 by J. T. Olson, Co. Aud., for bridge construction for 1915.

Butte, Mont.—Paving of portion of Front with wood block is reported contemplated; cost about $10,000.

Lewiston, Mont.—Plans being prepared by City Engineer for about 40,000 sq. yds. paving in business section of city.

Townsend, Mont.—Bids reported desired until Mar. 2 by Wm. Ragen, Co. Clk., for $22,000 bonds issued for the purpose of constructing roads.

★**Austin, Tex.**—Contract for constructing Travis County share of Austin-San Antonio Post Rd. has been awarded by Commissioners Court to J. W. George & Sons, Shreveport, La.

Yoakum, Tex.—Citizens voted $50,000 road bonds for constructing roads between Dryer and Hochheim and to Yoakum, distance of 14 miles.

Tulsa, Okla.—City Council voted to pave Cincinnati and Detroit Aves. and Easton St.

Aberdeen, Wash.—City Council contemplates paving 5th St.; cost about $12,305.

Bellingham, Wash.—Construction of 5½ miles of pavement, 16 ft. wide, with 2½-in. asphalt on Silver Beach and Geneva Rd., is contemplated by city; cost $125,100.

Cathlamet, Wash.—Nothing definite has yet been done toward constructing State Highway from Kelso down the Columbia River, via Cathlamet to Long Beach, in Passaic County. Thos. H. Allman, Co. Engr.

Chehalis, Wash.—Following are lowest bids opened by County Comrs. for constructing 3 concrete roads as follows: Highway No. 5A, Two Miracle Contr. Co., Kalispell, Mont., $14,000; Highway No. 2, Jacobsen Bade Co., Portland, Ore., $15,458; Highway No. 181, Two Miracle Constr. Co., $13,600.

Plans have been completed by County Engineer for constructing 1½ miles concrete road near Curtis and for cut off between Klaber and Pe Ell; cost about $26,000.

North Yakima, Wash.—Plans have been completed by O. E. Bradshears, County Engineer, for construction of waterbound macadam road 2 miles long on Nachez Rd., and 4 miles graded and graveled road between Wapato and Toppenish, and 2½ miles road between Granger and Sunnyside. Above work will cost about $45,000.

Renton, Wash.—Plans have been completed by A. P. Denton, County Engr., for grading and gravel surface 10 miles highway between Renton and Issaquah; cost about $80,000.

Seattle, Wash.—Contracts about to be let by Bd. Public Wks. for constructing walks on E. 41st St. and resurfacing Pike St.; cost about $85,000.

Spokane, Wash.—Plans will be completed March 1 for constructing 11½ miles Palouse Highway from Rockford to Waverly at cost of about $150,000, to be surfaced with asphalt macadam. Plans will be completed about Feb. 15 for constructing 4 miles Inland Empire Highway from Denison to Deer Park; cost about $40,000 to be surfaced with asphalt macadam.

Plans have been completed by City Engineer for grading and paving Hillyard Arterial Highway; cost about $125,000.

★**Portland, Ore.**—Contract for paving E. 44th and E. 45th Sts. awarded to Warren Constr. Co., Portland, at $12,150.

Manhattan Beach, Cal.—Bids reported desired until Feb. 17 by Clarence E. Jenkins, City Clk., for improving portions of Center, 5th, 14th and 30th Sts., involving approximately 34,300 sq. ft. concrete pavement with oil and screening surface, 12,000 sq. ft. 4-in. concrete pavement, 9000 sq. ft. bitulithic pavement on concrete foundation, 15,200 cu. yds. excavation, 6800 sq. ft. sidewalk, etc.

Palo Alto, Cal.—Frank Kasson, City Clk., writes that during the summer it is proposed to pave Everett, Fulton, Cooper, Horner and Emerson Sts. with asphalt on 5-in. concrete foundation, concrete curb; cost $70,000. J. F. Byxbee, City Engr.

★**Richmond, Cal.** — Contract reported awarded by City Council Jan. 26 to G. W Gushing for paving 16th St. with asphalt, at $19,409.

San Bernandino, Cal.—Bids reported desired until Feb. 23 by County Bd. Superv. for furnishing and delivering 30,000 bbls. crude oil or road oil. L. R. Patty, Co. Clk.

Sausalito, Cal.—Leonard L. Hobl, Town Engr., writes bids will probably be received in March or April for 100,000 sq. yds. asphalt, on concrete base, with 50,000 lin. ft. concrete curb, on Water, Caledonia and Bonita Sts. Cost about $100,000.

Boise, Idaho.—State Highway Comn. at Boise voted to appropriate $100,000 for completing highway from Weiser to Orangeville.

Outremont, Que.—See "Water Works."

Ottawa, Ont. — The following paving work is in contemplation by city: O'Connor St., from 5th to Centre St., estimated cost $8,323, to include 680 lin. ft. curb and gutter; 35 lin. ft. headers; 680 lin. ft. gutter; 8 concrete catchbasins; 2300 sq. yds. asphalt; O'Connor St., Lewis to Catherine, estimated cost $20,689, to include 5650 sq. yds. asphalt; 1500 lin. ft. curb and gutter; 2000 lin. ft. gutter (straight); 300 lin. ft. gutter (curved); 330 lin. ft. headers; 22 catchbains; and Bank St., from Echo Drive to Riverdale; estimated cost $61,726, to include 7500 sq. yds. asphalt; 6000 sq. yds. stone blocks; 7650 sq. ft. water table; 5000 lin. ft. gutter; 200 lin. ft. curb and gutter; 400 lin. ft. headers; 100 cu. yds. reinforcing; 40 concrete catchbasins. F. C. Askwith, City Engr.

Ottawa, Ont.—Bids desired until Feb. 23 by Chairman Water Wks. Com. for furnishing and delivering broken stone, brick, cement, sand, asphalt, vitr. clay pipe, etc. F. C. Askwith, City Engr.

Winnipeg, Man.—Bids reported desired until Feb. 15 by Secretary Bd. of Control for constructing 2-span steel bridge over Lee River.

North Vancouver, B. C.—See "Bridges."

STREET CLEANING AND GARBAGE DISPOSAL.

Items Arranged Geographically

Augusta, Ga.—Nisbet Wingfield, City Engr., in his annual report, recommends construction of 3 incinerating plants.

Cleveland, O.—Council on Feb. 1 voted on appropriation of $30,000 for improvements at the Newburg Heights garbage plant.

California.—Following are the unit prices of the lowest bids opened Feb. 1 by State Highway Comn., Forum Bldg., Sacramento, for constructing a state highway in Butte County, Div. 3, Route 3, Sect. C: (a) Whitlock & Gorrill, San Francisco; (b) G. H. Gorrill & A. W. Gorrill, San Francisco; (c) F. Rolandi, San Francisco; (d) L. F. Gerdetz, San Francisco; (e) Engineer's estimate.

	(a)	(b)	(c)	(d)	(e)
40,000 cu. yds. excav. (ordinary) (without classification)	$0.55	$0.55	$0.43	$0.60	$0.50
264 lin. ft. 12-in. cor. iron pipe	.50	.50	.50	.50	.30
198 lin. ft. 18-in. cor. iron pipe	.60	.60	.60	.60	.40
72 lin. ft. 24-in. cor. iron pipe	.75	.75	1.00	.75	.50
220 cu. yds. cement concrete, Class B (culverts and monuments)	10.00	10.00	10.00	10.00	9.00
15,950 cu. yds. cement concrete, Class B (pavt.)	2.80	2.87	3.37	3.10	3.00
2,300 lin. ft. guard rail	.35	.35	.40	.45	.35
121 monuments to haul and set, ea.	.60	1.50	.80	1.00	1.00
Totals	$70,042	$71,268	$74,491	$77,108	$81,593

★*Items marked thus give the names of parties awarded contracts.*

Outremont, Que.—See "Water Works."

North Vancouver, B. C.—City Council reported to have voted bond issue of $30,000 for street cleaning apparatus.

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Items Arranged Geographically

★**Dredging—New York, N. Y.**—Contract awarded to Morris & Cummings Dredging Co., 17 State St., New York, for dredging in Hudson River channel at $65,530 (bids opened Jan. 22).

Hydro-Electric Plant — Seneca Falls, N. Y.—The State Canal Bd. at Albany, is reported to have accepted the plans of the Seneca Falls Power Cor., which is about to be incorporated, for construction of a hydro-electric power plant at Seneca Falls, capable of developing 7500 10-hour hp. Ernest G. Gould, also Chamber of Commerce, of Seneca Falls, reported interested.

★**Repairs to Bulkhead — Philadelphia, Pa.**—Contract awarded Feb. 1 by T. J. Rout, Lighthouse Inspector, Philadelphia, for repairs and extensions to timber groynes and bulkhead at Cape Henlopen, Delaware, to Wm. A. Russell, Lewes, Del., at $5.84 per lin. ft.

Rivers and Harbors—Washington, D. C.—With an increase of $4,489,800 over the bill as it passed the House, the Senate Commerce Comn. on Feb. 4 reported the rivers and harbors appropriation bill, carrying a total of $38,627,880.

★**Lock Gates—Wheeling, W. Va.**—Following are 4 lowest bids fornishing and erecting steel lock gates for Dam No. 15, Ohio River, opened at Wheeling, Jan. 30, by Maj. T. H. Jackson, Corps Engrs., U. S. A., Penn Bridge Co., Beaver Falls, Pa., $28,741 (recommended for award); Independent Bridge Co., Pittsburgh, Pa., $29,098; Alliance Structural Co., Alliance, O., $30,091; C. A. Turner, Inc., Pittsburgh, Pa., $31,584.

Drainage—New Bern, N. C.—The New Bern Drainage Commission is reported formed, with Geo. D. Dail, as Secretary, to have charge of reclaiming lands in New Bern, Jerkinstown, Hendersonville, Reizensteintown, Pavietown and Duffytown, which become flooded by the excessive rainfall.

Dredging—Wilmington, N. C.—Bids desired until Mar. 9 by Maj. H. W. Stickle, Corps Engrs., U. S. A., Wilmington, for dredging in Neuse River waterway, from Pamlico Sound to Beaufort Inlet, and Beaufort Harbor, N. C., advertised in Engineering Record.

Drainage — Miami, Fla.—The Bd. of Trade at a recent meeting here submitted to Governor Park Trammell, of Tallahassee, and the other State officials who attended this meeting, plans for drainage of the Everglades, to fit the lands for immediate cultivation.

Wharf—St. Petersburg, Fla.—Bids desired until Feb. 15 by City Commissioners for constructing a wharf or landing parallel with south shore line of Dock No. 1, Bayboro, Commercial Harbor. Said construction may be of wood or concrete. W. F. Divine, City Clk.

★**Drainage — Corinth, Miss.** — Contract reported awarded by the Drainage Comrs. of Alcorn County, to N. C. McGinnis & Co., of Memphis, Tenn., for work to the Chambers Creek Canal, at $9,950.

Drain—Calhoun, Ky.—F. F. Shafer, of Louisville, U. S. Drainage Engr., reported to be preparing plans for draining certain sections in McLean and Muhlenburg Counties; cost about $175,000.

Ditch—Calhoun, Ky.—John Cary, City Clk., writes that it is proposed to construct a large dredge ditch from plans of Engineer Hart of Owensboro.

Channel—Tiffin, O.—City Council Feb. 3 passed an ordinance providing for improvement of channel of Sandusky River in this city, at an estimated cost of $100,000.

Ditches—Upper Sandusky, O.—Bids reported desired until Mar. 1 by County Commissioners for constructing 10 ditches, 40,000 ft. long, 8 to 24-in. tile. J. Megurat, Co. Aud.

Breakwater—Port Huron, Mich.—City Engineer Whitmore reported to have been instructed to examine Black River canal and submit an estimate as to cost of erecting a cement breakwater and opening the ditch again.

★**Cribbing — Milwaukee, Wis.**—Contract awarded by Park Board Jan. 28 for building 1700 ft. of protection cribbing from Wisconsin St. to Juneau Ave., to E. Gillen, at $59,840. The new cribbing will be part of the lake shore drive and park project.

River Wall—Cedar Rapids, Ia.—Bids desired until Feb. 26 by City Council for constructing a river wall, approximately 650 lin. ft. long and 26 ft. high, sidewalks and stairs. L. J. Storey, City Clk.

Ditch—Anoka, Minn.—All bids opened Feb. 4 by Arthur A. Caswell, Co. Aud., for constructing Drainage Ditch No. 54 having been rejected, being considered too high.

★**Ditch — Bemidji, Minn.** — Contract awarded Jan. 29 for constructing ditch No. 22 to Minneapolis Drainage Co., of Baudette, at $25,252.

Ditches—Jackson, Minn.—P. D. Keller, Co. Aud., writes following are the 3 lowest bids opened Feb. 3 for constructing Judicial Ditches 32, 33 and 36 (all tile).

*Ditch No. 32, Chris. Axelsen, Clear Lake, Ia., $30,600 (awarded contract); Anton Jefson, Clear Lake, Ia., $31,735; John Christensen, Lakefield, Minn., $31,950.

*Ditch No. 33, Rude & Wold, Pomeroy, Ia., $59,300 (awarded contract); Schoel Bros., Navada, Ia., $60,595; Redding & Smaage, Windon, Minn., $61,000.

*Ditch No. 36, Jens Petersen, Lakefield, Minn., $4,786 (awarded contract); Nels Petersen, Okabena, Minn., $4,794; A. M. Plasterer, Heron Lake, Minn., $4,995.

★**Ditch — Mankato, Minn.** — Contract awarded to G. E. Gilbertson, of St. James, for constructing Ditch 35 (bids opened Feb. 2). C. L. Kennedy, Co. Aud.

River Terminals, Etc.—St. Paul, Minn.—John H. Bernhard, of New Orleans, La., is reported to be organizing a $5,000,000 navigation company here for construction of river terminals.

Dredge—Kansas City, Kan.—Bids desired until Feb. 27 by Kaw Valley Drainage Dist., Kansas City (T. E. Myers, Pres.) for furnishing a hydraulic dredge and the necessary equipment for the improvement of the Kansas River, at Kansas City, advertised in Engineering Record.

Ditch Work—Harlingen, Tex.—Bids desired until Feb. 13 by A. S. Lowe, Pres. County Irrigation Dist. No. 1, for construction, repair, excavating and removal of silt, dirt and all obstructions to the ready flow of water along and through mains, laterals and irrigation ditches now constructed and in said district, on the estimated length of 17 miles and aggregate yardage of 190,000 cu. yds., and other improvements.

Drainage — Victoria, Tex. — Engineers have completed survey for new drainage district in eastern part of Victoria County, from Victoria to Calhoun County line, to embrace about 104 square miles of territory. The district will be established at once and an election called to vote a bond issue of about $200,000 for its improvement; it will be known as Dist. No. 3.

★**Irrigation—Montrose, Colo.**—The Secy. of Interior, at Washington, D. C., has authorized the U. S. Reclamation Service to execute the following contracts for construction of the Lower Selig Extension Canal and laterals of the Uncompahgre Valley Irrigation projects, Colo.: To the Reynolds-Ely Constr. Co., of Springville, Utah, Schedules 1 to 14 and 16 to 18, inclusive, at a total of $21,766, and Geo. F and R. E. Wear, Delta, Cole., Schedules 15 and 19, at $2,271.

Power Plant—Concrete, Wash.—Stone & Webster Co., Boston, Mass., write that this company will not construct a power plant at Concrete, as recently reported.

Irrigation — North Yakima, Wash.—Plans reported completed for about 30 miles of open ditch in Irrigation Dist. No. 2, at a cost of $100,000, and contracts will be let by County Comrs. some time in March.

Dredge, Etc.—Bandon, Ore.—It is reported that the port of Bandon will shortly have plans completed for a $50,000 dredge; and is also considering voting $250,000 bonds for harbor development work.

Irrigation Dam — Riddle, Ore. — The Neenah-Oregon Land Co. (I. P. Gardner, Mgr.) will construct an irrigation and power dam above Days Creek, on South Umpqua River, to divert water from river for irrigation purposes and to operate pulp mills; cost about $10,000.

Irrigation—Vale, Ore.—It is reported that the Succor Creek Irrigation Dist. has been recently organized to irrigate about 8000 acres of land in Malheur County, Ore., and Owyhee County, Idaho. Water will be taken from Succor Creek, a diversion dam and power pumping station will be built. Address J. S. Wheeler, Vale.

Irrigation—La Mesa, Cal.—Chas. Samson, Pres. La Mesa Lemon Grove & Spring Valley Irrigation Dist., writes that it is proposed to spend about $500,000 to improve system just purchased, including new dams, pipe lines, etc.

Irrigation—Cibola, Ariz.—C. K. Clark, Jonathan Club, Los Angeles, Cal., is Engineer for the proposed irrigation system for the Cibola Valley Irrigation Dist. Bonds in the sum of $5,000,000 were voted Nov. 3, but owing to financial conditions have not yet been advertised for sale; nothing further will probably be done until after directors' meeting in April. Tony Seeley, of Cibola, Pres. of Dist.

Irrigation—Oak Bay, B. C.—Citizens reported to have voted $30,000 bonds for constructing an irrigation system.

ELECTRIC RAILWAYS.

Items Arranged Geographically

Boston, Mass.—Bids desired until Feb. 25 by Boston Transit Comn. (B. Leighton Beal, Secy.) for building Sect. H., Dorchester Tunnel, advertised in Engineering Record. Length about 2200 ft., to be mainly of reinforced concrete and consist of a single span double-track tunnel, to be built by the cut and cover method; work also includes a pump well, an emergency exit and sewer changes.

Brooklyn, N. Y.—Samuel Beskin, of Beacon, and the Public Service Comn., 154 Nassau St., New York, have executed contract for reconstruction and installation of cross-overs at DeKalb Ave. station on 4th Ave. subway in Brooklyn. The contractor furnished a bond for $50,000. The changes at DeKalb Ave. station are necessary to permit stopping of express trains at platforms, as station was originally constructed for local trains only.

Public hearings on form on contract will be held by the Public Service Comn. for the First Dist. on Feb. 23 upon contract for completion of construction and station finish of 4th Ave. subway between Hanson Pl. and Butler St.; and on form of contract for construction of Sect. 2 of Route 29, the Nostrand Ave. branch of the Eastern Parkway subway in Brooklyn. Sect. No. 2 extends under Nostrand Ave. from Church Ave. to Flatbush Ave.

Brooklyn, N. Y.—See "Private Buildings."

★**Brooklyn, N. Y.**—Lowest bid opened Feb. 4 by New York Municipal Ry. Co. for elevated extension to the Brooklyn subway has been submitted by Post & McCord, Inc., 101 Park Ave., New York; about 13,000 tons structural shapes and plates will be required.

New York, N. Y.—Bids desired until Feb. 26 (readvertisement) by Public Service Comn. for First Dist., 154 Nassau St., for construction of Sect. 4 of the Routes 4 and 36, a part of the Bway.-4th Ave. Rapid Transit R.R. in Boro. Manhattan. Work consists of a 2, 4 and 6 track underground railroad extending northerly under 7th Ave. from 51st to 59th St. and easterly under 59th St. to a point 22 ft. west of westerly building line of 7th Ave. extended.

Shreveport, La.—Plans being made to construct 1½-mile extension from Waverly to South Highlands in Shreveport for Shreveport Traction Co. L. T. Peden Ch. Engr., Shreveport.

Conneaut, O.—Surveys have been completed by Conneaut, Kingsville & Ashtabula Ry. Co., on 14-mile line between Conneaut and Ashtabula. W. E. Hawley, Kingsville, Pres.

Oklahoma City, Okla.—An interurban line 130 miles long to connect Columbus and Galena in southeastern Kansas with northern and central Oklahoma and Oklahoma City is to be constructing by Oklahoma & Interstate Ry. Co. Work to begin in spring according to reports. John R. Rose, Oklahoma City, Pres.

RAILROADS.

Items Arranged Geographically

Macon, Ga.—The Ocilla Southern R.R. Co. (D. C. Smith, Gen. Mgr., Ocilla) reported to be considering extension of its line from Rochelle, Ga., to Macon, a distance of 80 miles.

Jackson, Miss.—It is reported that the Meridian & Memphis R.R. Co. (S. A. Neville, Vice-Pres., Meridian), which recently built a short distance out of Meridian towards Union, intends to extend its line to Jackson.

PUBLIC BUILDINGS AND SCHOOLS.

Items Arranged Geographically

Auburn, Me.—Plans prepared by Harry S. Coombs, of Lewiston, selected for the Webster Grammar School to cost $100,000.

Boston, Mass.—Mayor has approved the selection of Funk & Wilcox as architects for the Sarah Greenwood School. Appropriation $35,000.

Chicopee, Mass.—Bd. of Aldermen passed ordinance providing for an appropriation of $1,250 for plans and specifications for the proposed addition to the high school.

Greenfield, Mass.—Bids desired until Mar. 15 by O. Wenderoth, Superv. Archt., Washington, D. C., for construction complete (including mechanical equipment, lighting fixtures and approaches) for U. S. Post Office at Greenfield.

Lynn, Mass.—Reported a 4-story extension is to be erected at the Lynn English High School costing $252,000.

North Adams, Mass.—Plans prepared by G. C. Gardner, Springfield, for a high school which School Com. is considering.

★**Bridgeport, Conn.**—Reported contract for erecting the 6 buildings, brick, stone and concrete for the almshouse awarded to Oscawana Bldg. Co. of New York at about $140,000. Skinner & Walker, Archts., Bridgeport.

★**New Britain, Conn.**—Contracts for erecting vocational high school awarded as follows: General contract, to Thos. W. Crowe, of New Britain, at $105,401; heating and ventilating, Libby & Blinn, Hartford, $11,725; electrical work, Hanlon & Murphy, Hartford, $2,032; also plumbing, at $6,600.

Beacon, N. Y.—G. F. Du Bois, Clk. Bd. of Educ., writes Rasmussen & Wayland, of New York, have been selected to prepare plans for the proposed $48,000 school.

Ft. H. G. Wright, N. Y.—Bids desired until Mar. 8 by Constructing Quarter Master, Ft. H. G. Wright, for constructing a concrete storehouse at this post, advertised in Engineering Record.

Long Island City, L. I., N. Y.—Bids desired until Feb. 22 by C. B. J. Snyder, Supt. School Bldgs., New York City, for general construction; also plumbing and drainage of School 97, Woodhaven, Boro. Queens.

Mt. Vernon, N. Y.—Plans being prepared by Geo. A. Bartlett, 103 Park Ave., New York, N. Y., for the proposed city hall.

Newark, N. Y.—Bids desired until Mar. 4 by Dr. Henry H. Stebbins, Pres. Bd. Trus., New York State Custodial Asylum for Feeble-Minded Women, Newark, for constructing cottage for 92 inmates, including plumbing, heating and electric work and constructing hospital, including heating, plumbing, drainage and electric work. Lewis F. Pilcher, State Archt., Albany.

★**New York, N. Y.**—Following are bids opened Feb. 8 by C. B. J. Snyder, Supt. School Bldgs., for erecting School 48 in Borough Bronx, on Spofford Ave. and Faile St.

★General construction: Geo. B. Wills & Co., Inc., $261,934; H. C. Stowe Constr. Co., $271,430; Laurence J. Rice, 42d St. and Lexington Ave., $247,581 (awarded contract); John T. Brady & Co., $276,949, and T. A. Clarke Co., $267,300.

★Contract for plumbing and drainage in above building awarded to Wells & Newton Co., of New York, Ave. B and 17th St., at $16,549.

Rome, N. Y.—Bids desired until Mar. 1 by Chas. R. Mahady, Pres. Bd. Mgrs., N. Y. State Custodial Asylum, Rome, for dormitory, including construction, heating, plumbing, drainage and electric work at the said Asylum, advertised in Engineering Record. Lewis F. Pilcher, State Archt., Albany.

Syracuse, N. Y.—Plans submitted by Merrick & Randall, Syracuse, for a 3-story brick, stone and steel school to be erected at Madison and Montgomery Sts. for the Cathedral Parish. Bishop Grimes is in charge.

Syracuse, N. Y.—Reported contract will be let about Mar. 1 for erecting the vocational high school. Address Bd. Educ.

Utica, N. Y.—Bids desired until Mar. 15 by Comrs. of Common Schools (Denis J. Kelly, Clk.) for erecting a technical school and power section addition to the Utica Free Academy and a gymnasium, Agne, Rushmer & Jennison, Archts., Arcade Bldg.; Douglas Sprange, Engr., 39 Cortlandt St., New York.

West Haverstraw, N. Y.—Bids desired until Feb. 16 by Geo. Blagden, Pres. Bd. Mgrs. New York State Hospital for Crippled and Deformed Children, West Haverstraw, for constructing hospital building, including heating, plumbing, drainage and electric work and electric elevator.

Allenhurst, N. J.—See "Hydraulic and River Improvements."

Hoboken, N. J.—J. H. Londrigan, City Clk., writes that following are 4 lowest bids opened Jan. 27, for erecting fire house: And. J. Phelan, 47 Park St., Jersey City, N. J., $37,750; G. Dekimpe, Hoboken, $38,800; Limouze Bros., Weehawken, $38,849; John J. Egan, 223 Mercer St., $39,000.

North Plainfield, N. J.—Bids desired until Feb. 15 at Somerset School for erecting Harrison Ave. School; also separately for ventilating and heating. John Noble Pierson, Archts., 130 Smith St., Perth Amboy.

Kennett Square, Pa.—Bids desired until Feb. 15 by Bd. Educ. (J. H. Gawthrop, Secy.) for erecting high school. Clyde S. Adams, Archt., 1509 Arch St., Philadelphia.

Johnstown, Pa.—Preliminary plans have been submitted by J. Emmett Lucas, Johnstown, for an administration building for the offices of the Bd. Educ., and to cost $25,000.

Meadville, Pa.—Andrew Carnegie has given to Allegheny College $40,000 with which to erect new chemistry building to replace the building destroyed by fire.

Philadelphia, Pa.—The Mercy Hospital for Negroes (Dr. A. B. Jackson, Supt.) intends erecting a hospital and nurses' home; cost $50,000.

Bids desired until Feb. 16 by Dept. Pub. Safety (Geo. D. Porter, Dir.) for erecting a fire house, Byberry, 35th Ward. Rankin, Kellogg & Crane, Archts., 1012 Walnut St.

Philadelphia, Pa.—Plans being prepared by John T. Windrim, Commonwealth Bldg., for a public library to be erected at Wayne and Huntington Park Ave. to cost $30,000.

Sharon, Pa.—The Buhl Hospital (M. M. Cumming, Supt.) will erect a nurses home; cost reported to be $100,000. Plans and specifications not yet completed.

Springdale, Pa. — Bids desired until Feb. 25 by School Bd. (W. A. Clowes, Jr., Secy.) for erecting a grade school; also separate bids for heating, ventilating, plumbing and electric wiring. P. C. Dowler, Archt., Arrott Bldg., Pittsburgh.

Baltimore, Md.—Reported present quarters of Hahnemann Hospital are to be rebuilt at a cost of $250,000. Plans prepared.

★*Items marked thus give the names of parties awarded contracts.*

Prince Frederick, Md.—Bids desired until Mar. 6 by Bldg. Com. (Thos. Parran, Chmn.) for furnishing material and erecting a courthouse. T. Kent Roberts, Archt., 924 17th St. N. W., Washington, D. C.

Roanoke, Va.—Reported bids desired by City Engineer for new city hall according to plans by Frye & Chesterman, Roanoke.

Warwood, W. Va.—Citizens voted in favor of issuing $50,000 bonds for school improvements.

Columbia, S. C.—Both Houses of the Legislature have passed the bill permitting Trus. of Public Schools of Columbia to issue $250,000 bonds for a new school building.

Lincolnton, Ga.—Plans of G. Lloyd Preacher, Augusta, selected for the 2-story brick court house to cost $30,000.

Rome, Ga.—McCormick & Co., 3d Ave., have submitted preliminary plans to the Mayor for a hospital which it is proposed erecting at a cost of about $40,000.

St. Gabriel, La.—Citizens voted in favor of erecting a high school.

★**Vivian, La.**—Contract for erecting the 2-story brick and terra cotta school for Caddo Parish awarded to Jones & Harrington, of Hot Springs, Ark., at $56,462.

Chattanooga, Tenn.—R. H. Hunt, Chattanooga, selected by City and County Health Authorities to prepare plans for the isolation hospital to be erected at Citico, near Chattanooga.

Ludlow, Ky.—Bd. Educ. considering issuing $30,000 bonds to erect a school.

Cleveland, O.—Ordinance passed third reading in Council appropriating $200,000 for erecting buildings or purchasing sites, etc., for the Fire Dept.

Cleveland, O.—Bids will be received by Board of Education, Feb. 18, for erection of Corlett School; 8 rooms to be erected at the present time and 32 in the future. Building complete to cost $150,000.

★Contract for erecting 5 buildings for the Jewish Hospital in E. 105th St. awarded to Reaugh Constr. Co., E. 51st St.; cost $400,000.

Columbus, O.—Bids desired until Mar. 2 by Edw. B. McFadden, Clk. Bd. Educ., for furnishing material and erecting Studer Ave. School. D. Riebel, Archt., New First Natl. Bank Bldg.

Corning, O.—Citizens voted in favor of issuing $30,000 bonds to erect a school.

Etna, O.—An 8-room school, including auditorium, is to be erected here, according to plans by Rusk & Sheets and C. A. Thomas & Co., Columbus.

Hudson, O.—Bids desired until Mar. 3 by Bd. Educ., Hudson Village School Dist. (John S. Walker, Clk.) for erecting a 10-room grade and high school, including heating, plumbing, gas piping and electric wiring. J. W. C. Corbuster, Archt., Lennox Bldg., Cleveland.

McCutchenville, O. — School bonds amounting to $40,000 have been sold.

McClure, O.—Plans prepared and bids being received by Manfred F. Stophlet, Toledo, for a 2-story brick and concrete township school to cost $35,000.

North Baltimore, O.—Plans being prepared by Manfred F. Stophlet, Toledo, for a 2-story township school house to be brick and concrete and cost $55,000.

Toledo, O.—School bonds amounting to $900,000 have been sold.

Willoughby, O.—All bids opened by Clerk Bd. of Educ. Jan. 26 for erection of a fireproof brick and concrete high school, from plans of Franz C. Warner, Hippodrome Bldg., Cleveland, have been rejected; no date yet set for receiving new bids. Cost about $80,000.

Worthington, O.—Bids desired until Mar. 4 by W. P. Vest, Clk. Bd. Educ., care of Frank L. Packard, Hayden Bldg., Columbus, for erecting a high school.

Youngstown, O.—Site selected on the South Side on which Bd. Educ. intends erecting a 16-room school.

Elkhart, Ind.—Plans being prepared by E. Hill Turnock, of Elkhart, for city hall.

Evansville, Ind.—Bids desired until Feb. 16 by Bd. Educ. (A. L. Fisher, Clk.) for erecting the Chandler School on grounds of present Chandler School. Gilbert, Fabian & Brentano, Archts., Furniture Bldg.

Greencastle, Ind.—Bids reported desired until Feb. 17 by Bldg. Com. for erecting the Bishop Bowman Memorial Gymnasium at DePauw Univ. and which is to cost $100,000. R. P. Daggett & Co., Indianapolis, Archts.

Huntington, Ind.—E. P. Ayres is member of the committee having in charge the erection of the lodge building for the Elks at Matilda and Jefferson Sts., to cost $25,000.

Kendallville, Ind.—F. S. Weber, Secy. Bd. of Educ., writes that bids will be received about Mar. 15 for erection of a brick high school, semi-fireproof, to cost about $40,000. Architect not yet selected.

Terre Haute, Ind.—Bids reported desired until Feb. 20 by Bd. Co. Comrs. for erecting a school and chapel for County Home for Orphans. Nathan G. Wallace, Co. Aud.

Lowell, Mich.—Citizens voted in favor of issuing $50,000 bonds for school improvements.

East St. Louis, Ill.—Bids reported desired until Mar. 15 by Ruester & Rubach, Archts., 414 Missouri Ave., for erecting a 2-story and basement, 136 x 282 ft. high school.

Morris, Ill.—Bids reported desired until Feb. 25 by Bd. Educ. (A. B. Harrison, Pres.) for erecting superstructures of 2 additions to high school, brick, 2 stories, 21 x 80 ft. each. Probable cost, $25,000. Grant C. Miller, Fullenwider & Dowling, Archts., 116 S. Michigan Ave., Chicago.

Ottawa, Ill.—Plans for high school are to be prepared by Wm. B. Ittner, St. Louis, Mo. Cost $200,000. Township Bd. Educ. has charge of matter.

Competitive plans desired until Feb. 23 by Com. County Detention Home and Training School (W. K. Shute, Chmn.) for a County Detention Home near Ottawa. Cost not to exceed $30,000.

★**Milwaukee, Wis.**—Contracts awarded by School Bd. as follows:

★Washington High School: Mason work, Riesen & Riesen, $74,370; cut stone work, Consolidated Stone Co., $31,886; plastering and stucco, A. H. Bieuel Co., $20,000; sheet metal work, Anton J. Rechlicz, $5,763; carpenter work, August Holstein, $45,290; hardware, Philip Gross Hardware Co., $2,917; tile, marble, etc., Wisconsin Mantle & Tile Co., $36,900.

★Detroit St. School Addition: Excavating concrete, etc., Edw. R. Kiesslich, $11,450; mason work, Richd. Hoeppner, $15,166; cut stone work, C. W. Tingley, $2,180; steel and iron work, A. F. Wagner, $2,280; marble work, Breidster Marble Co., $2,244; carpenter work, Henry Jahns, $13,990; heating and ventilating, Wenzel & Henoch, $9,197.

Shawano, Wis.—Bids reported desired until Feb. 17 by Arthur Mathwig, Secy. Library Bd., for erecting a library. Claude & Starck, Archts., 8 S. Carroll St., Madison.

Missouri Valley, Ia.—The Secy. Bd. Educ. writes that F. E. Colby, of Sioux City, is architect for the proposed high school; it will be 2 stories, of brick, and cost about $70,000.

Pocahontas, Ia.—Citizens of Pocahontas County will in the spring vote on question of constructing a brick or stone court house.

★**Sioux Rapids, Ia.**—Contracts for erecting high and grade school awarded as follows: General construction, J. P. Riddle, Creighton, Neb., $45,240; heating and plumbing, J. E. McCartney, Cedar Rapids, Ia., $10,400. J. O. Osmundson, Secy. Bd. Educ.

Kenyon, Minn.—Bids desired until Feb. 16 by School Bd. of Dist. No. 91 (J. C. E. Holmen, Clk.) for erecting school of fireproof construction, cost not to exceed $53,000, exclusive of old building to be razed by contractor and old material used by him. Work to include heating, plumbing, ventilating, electric wiring and ventilation. Building must have high school assembly room, necessary recitation rooms, 8 grade rooms, gymnasium, normal training and all industrial departments.

Atchison, Kan.—Bids desired by Bd. of Educ. until Mar. 8 for erection of a school to be 2 stories, brick and reinforced concrete, 110 x 50 ft., from plans of Saylor & Seddon Co., Gumbel Bldg., Kansas City, Mo. Heating contract has been let.

★**Kansas City, Mo.**—J. B. Jackson, Jr., Secy. School Dist., writes contract for erecting superstructure of Kensington School (bids opened Feb. 1) has been awarded to Bert L. Elmer, at $85,055.

Galveston, Tex.—Bids desired by J. M. Fendley, care of Lane & Dowdy, Archts., Trust Bldg., Galveston, for erecting a school on Galveston Island about 1 mile from Galveston City limits.

★**Temple, Tex.**—Contract awarded to H. D. McCoy, Cleburne, for erecting the addition to the Santa Fé R.R. Hospital at $49,000. Building will be 3 story, reinforced concrete, brick and stone. Sanquinet & Staats, Archts., Ft. Worth.

Oklahoma City, Okla.—Bids desired until Feb. 25 by State Capitol Comrs. (Ira Mitchell, Secy.) for furnishing the following material to be used in the concrete frame of the Oklahoma State Capitol Building: 23,500 ft. ½-in. conduit, 21,500 ft. ¾-in. conduit, 190 4-in. round outlet boxes, ¾-in. hole, and 850 4-in. ½-in. hole, 361 4-in. square outlet boxes single gang covers, 260 single gang switch boxes, 18 3-gang, 1 4-gang and 2 5-gang switch boxes, 1040 fixture studs, etc. Layton & Smith, Archts., Majestic Bldg.

Tulsa, Okla.—Reported the plans of J. W. Hawk, Tulsa, selected for the new library to cost, including equipment, $55,000.

Seattle, Wash.—Following are four lowest bids opened Jan. 28 by Port Comn. for erecting the 7-story reinforced concrete hollow tile fruit storage warehouse at Whatcom Ave. and N. Spokane St.: Harrington & Peters Co., Whatcom and Lander Sts., $111,000; Nettleton Bruce Eachbach Co., American Bank Bldg., $122,500; Jahn Contr. Co., Pioneer Bldg., $124,300, and Pearson Constr. Co., New York Blk., $124,997.

Seattle, Wash.—Port Comn. has decided to erect a 4-story head house for the West Seattle Ferry, instead of a 2-story building; cost about $50,000.

Walla Walla, Wash.—Reported a concrete and brick fireproof building will replace the St. Mary's Hospital recently destroyed by fire. Address Father R. Baldricen, care St. Mary's Hospital. Cost $250,000.

Pendleton, Ore.—Legislature has appropriated $100,000 for a reinforced concrete wing to the State Hospital at Pendleton.

Hawthorne, Cal.—Plans completed by W. C. Pennell, Baker-Detwiler Bldg., Los Angeles, for a 1-story school; cost, $50,000.

Tucson, Ariz.—Bids reported desired until Feb. 15 for erecting Safford High School. Probable cost, $32,000. Henry Jaasted, Archt., Tucson.

Montreal, Que.—Reported bids desired by Bd. Control until Feb. 26 for erecting the civic library on Sherbrooke St.

Hamilton, Ont.—Reported bids desired by Bd. Control for erecting a first unit of the Mountain Hospital, to be 5 story reinforced concrete.

Orono, Ont.—Bids desired until Feb. 15 (extension of date from Feb. 6) by A. J. Staples, Secy. School Bd., for erecting the Continuation and Public School building. J. P. McLaren, Archt., Ottawa.

Outremont, Que.—See "Water Works."

PRIVATE BUILDINGS.

Items Arranged Geographically

Everett, Mass.—Henry Crane, Brookline, having plans prepared for a fireproof theater.

Springfield, Mass.—Plans being prepared by J. Wm. Donahue, Main St., Springfield, for the Roman Catholic Church, Fairview, to be brick and terra cotta. Rev. John O'Connell, Pastor.

Plans prepared for a 5-story brick apartment house to be erected by Russell C. Parsons on Maple St.; cost $45,000.

Brooklyn, N. Y.—Bids desired until Feb. 18 by New York Municipal Ry. Corp., at office of Chief Engineer, 85 Clinton St., Brooklyn, for constructing 7 elevated railroad stations on the Fulton St. line between Nostrand Ave. and Sackman St.

Plans filed for a 6-story apartment house to be erected at Division and Bedford Aves. for the Keap Constr. Co., to cost $50,000. Shampan & Shampan, Archts., 772 Bway., Brooklyn.

Cohoes, N. Y.—Plans prepared by Delaware & Hudson R.R. (Jas. MacMartin, Ch. Engr., Albany) for a station to be erected on east side near Ontario St.

New York, N. Y.—Plans filed for 20-story office and store building to be erected at 309 to 313 Madison Ave., and 4-story building at 28 E. 42d St. August Heckscher, 576 5th Ave., Owner; Jardine, Hill & Murdock, Archts., 3 W. 29th St.

★**Rochester, N. Y.**—Contracts have been awarded as follows by Walker, Livingston & Brackett, Archts., E. & B. Bldg., for erecting a 5-story warehouse, 100 x 153 ft. steel and brick, on Exchange Ave., for Geo. C. Buell & Co.: General contract, to E. K. Fenno, Syracuse; elevators, Hauser Elevator Co., Syracuse, elevator doors, to Peele Co.; sprinkler, to General Fire Extinguisher Co.; steel, to American Bridge Co.; total cost about $75,000.

Schenectady, N. Y.—Plans prepared by Walter E. Stephens, 152 Barrett St., for a 7-story, 52 x 110 ft., store and apartment house, brick, steel and terra cotta, to be erected by A. B. Van Voast, 152 Barrett St., at a cost of $100,000. Bids will be received about Mar. 1.

Yonkers, N. Y.—The Hodgman Rubber Co., 806 Bway., New York, N. Y., is having plans prepared for a 4-story office building to be erected on south side of Scarsdale, Ave.

★**Camden, N. J.**—Contract for erecting 8-story steel, brick and limestone and terra cotta office building for Victor Talking Machine Co. awarded to Geo. A. Fuller Co., Philadelphia, Pa. Karcher & Smith, Archts.

Jersey City, N. J.—Harry J. Max, 112 Tonnele Ave., will erect a 3-story brick building costing $40,000.

★**Swedesboro, N. J.**—Contract reported awarded to Henry L. Brown, 1714 Sansom St., Philadelphia, Pa., for erecting a 2-story brick and stone building for the Swedesboro Natl. Bank; cost $40,000. Chas. R. Peddle, Archt., 136 S. 4th St., Philadelphia, Pa.

Altoona, Pa.—The Turngemeinde will erect on 8th Ave. and 12th St. a brick and stone club house.

Ardmore, Pa.—Cassia Lodge No. 273 F. and A. M. reported considering the erection of a $50,000 lodge building.

★**Philadelphia, Pa.**—Contract awarded to Edwin E. Hollenback, 15th and Race Sts., for erecting a church, Sunday school building and parsonage at 60th St. and Westminster Ave. for the Gethsemane Lutheran Church. Carl P. Berger, Archt., Penn Sq. Bldg.

Reported plans will be ready for bids about March 1 for erecting an 8-story brick and reinforced concrete warehouse on Delaware Ave. and Pine St. for the Pennsylvania Safe Deposit & Warehousing Co.; cost $100,000.

Pittsburgh, Pa.—Plans being prepared by John T. Comes, Pittsburgh, for a church for St. Agnes R. C. Church to be erected on 5th Ave. lower Oakland.

★**Charlotte, N. C.**—Francisco & Jacobus, 200 5th Ave., New York, N. Y., are architects for the 3-story fireproof, reinforced concrete, 600 x 100 ft. building to be erected on W. 1st and Church Sts. for the Mercantile Development Co., and for which contract was recently awarded to Travers Wood Co., of Richmond, Va., and Charlotte, N. C., at a cost of $250,000.

Akron, O.—An 8-story addition is to be erected to Portage Hotel on E. Market St. Plans to be prepared by Harpster & Bliss, of Akron.

Canal Winchester, O.—Plans approved as prepared by Richards, McCarthy, & Bulford, Columbus, for a 2-story fireproof garage to be erected to replace the Huddle garage owned by L. E. Huddle and Thimmes Bros. Cost $25,000.

Cincinnati, O.—Bids desired by Elzner & Anderson, Archts., Ingalls Bldg., until Feb. 23, for erection of branch Y. M. C. A. Bldg. on 9th St.; cost $70,000.

Cleveland, O.—Euclid Leasehold & Investment Co. has secured a site at 2022 Euclid Ave. on which it is proposed erecting a $75,000 building.

Reported plans filed for a 3-story brick and timber community house to be erected adjoining the Franklin Circle Disciple Church and to cost $35,000. Paul T. Cahill, Archt., 1900 Euclid Ave.

Lakewood, O.—Bids reported desired until Feb. 26 by J. W. Chrisford, Archt., 1452 Highland Ave., for erecting a 2-story and basement, 60 x 130 ft. Masonic Temple for Lakewood Masonic Temple Co. (J. M. Moyer, Secy., 1345 Ethel Ave.). Probable cost $40,000.

Springfield, O.—Reported bids desired Feb. 15 (extension of date) for cottages for boys to be erected at the Ohio Masonic Home, according to plans by Richards, McCarthy & Bulford, of Columbus.

Chicago, Ill.—Bids reported desired until Feb. 16 by Marshall & Fox, Archts., 38 S. Dearborn St., for erecting a 5-story and basement clubhouse for the South Shore Country Club (F. Bode, Pres., 70th St. and Yates Aves.). Probable cost $300,000.

Milwaukee, Wis.—Bids reported desired until Mar. 1 by Leon M. Gurda, Archt., 478 Mitchell St., for erecting a 2-story, 100 x 100 ft. Lodge Hall and business building for Anton Piskula, 8th St. and Manitoba Aves.

Bancroft, Ia.—Bids desired until Feb. 23 by Rev. E. J. Jungblut, Bancroft, for erecting a brick and stone church. Parkinson & Dockendorff, Archts., La Crosse, Wis.

Easton, Minn.—Bids desired until Feb. 21 by Bldg. Com. for erecting a church, including heating, plumbing, etc. W. F. Keefe, Archt., 304 American Natl. Bank Bldg., St. Paul; Rev. A. Hennekes, Pastor, Easton.

Emporia, Kan.—Bids will be opened Mar. 5 by L. V. Starkey, Secy. Y. M. C. A., for the erection of a 3-story brick, stone and concrete Y. M. C. A. building, to cost about $50,000. Shattuck & Hussey, Archts., 19 S. La Salle St., Chicago, Ill.

Edmore, N. D.—Plans prepared for the club house for the Elks, to cost $30,000.

St. Louis, Mo.—The Development Com. of the Junior League of Electrical Interests reported considering erecting a 10-story electrical exchange building.

Portland, Ore.—Loyal Order of Moose, Lodge No. 291, intends erecting at 4th and Taylor Sts. a 6-story fireproof club house, costing $120,000. Geo. R. Funk, Chmn. Bldg. Com.

Plans being prepared for a 3-story reinforced concrete apartment house to be erected at 13th and Columbia Sts. by A. R. Fanno, of Portland. Cost $50,000.

Los Angeles, Cal.—San Pedro, Los Angeles & Salt Lake R.R. (Arthur Maguire, Ch. Engr., Los Angeles) reported taking steps to erect a 2-story reinforced concrete station costing $260,000.

★**Vancouver, B. C.**—Reported contract for erecting 3-story reinforced concrete and terra cotta bank and office building at Main and Pender Sts. for the Canadian Bank of Commerce awarded to Baynes & Horis, 836 Howe St. Cast $100,000. B. D. Hosburg, Archt., Toronto, Ont.

NEW INDUSTRIAL PLANTS.

See also "Private Buildings."

Items Arranged Geographically

Leroy, N. Y.—Plans being prepared by G. O. Saunders Co., of Boston, Mass., for a factory to be erected this spring for manufacture of machinery for contractors in concrete.

Camden, N. J.—Plans prepared by Wm. Steele & Sons Co., Philadelphia, Pa., for a 4-story reinforced concrete 224 x 66 ft. factory to be erected for the Keystone Leather Co.; cost $90,000.

★*Items marked thus give the names of parties awarded contracts.*

Irwin, Pa.—The Penn Electric Mfg. Co., intends rebuilding the plant recently destroyed by fire, and a brick and steel building to cost, including machinery, $75,000 is contemplated.

★**Pen Argyl, Pa.**—Contract for erecting shops here for Lehigh and New England Railroad Company awarded to F. D. Hyde, of New York. The shops will include main building, 260 x 160 ft., storehouse and office buildings, 40 x 250 ft., and an oilhouse and engine building or round house. All will be of concrete construction. Cost about $100,000.

★**Philadelphia, Pa.**—Contract for alterations and additions to the S. J. Cresswell Iron Wks., 23d and Cherry Sts., reported awarded to Mitchell Bros., 2125 Race St. Ballinger & Perrot, Archts, 1211 Arch St.

Pittsburgh, Pa.—The Central Atlantic Sales Co., Keenan Bldg., reported interested in the erection in this city of a branch factory for the manufacture of the Ideal steering device for the guidance of Ford and electric automobiles. The main factory is in Kansas City, Mo.

★**Port Covington, Md.**—Contract to erect the grain elevator for the Western Maryland R.R. awarded to Jas. A. Stewart Co., New York, N. Y. Building is to be fireproof and cost about $600,000. Emil Tolyz, of St. Paul, Archt.

Portsmouth, Va.—Isaac Fass, Portsmouth, reported interested in building a cold storage and ice plant costing $25,000.

Louisville, Ky.—Permit issued to J. F. Kurfees Paint Co. to erect a 4-story brick and concrete factory and warehouse at Brook and Market Sts.; cost $50,000.

Ludington, Mich.—The Petit Salt Co., of Milwaukee, Wis., will erect here a salt plant to cost, according to reports, about $1,000,000.

★**Chicago, Ill.** — Contract reported awarded by Wieboldt Constr. Co. of Chicago for erecting the 4-story, 90 x 100 ft., building at 2341 Wabansia Ave. for the Burkland Knitting Wks.

Spokane, Wash.—Plans completed for improvements which the Caestens Packing Co., of Tacoma, intends making in the Empire Packing Plant in this city which they have recently purchased. Probable cost $50,000.

Portland, Ore.—The Union Meat Co, in which C. C. Colt is interested, reported to be planning improving the plant of the company in this city to the extent of $150,000.

Alameda, Cal.—The Safety Mfg. Co., of Alameda will erect 2 concrete buildings at a cost of $19,000, and spend $30,000 in equipment, to include stamping machines, drill pressers, lathes, 1 engine, 6 vats, 1 mixing machine, 1 band saw and box making machine. Bids for construction and equipment to be received Mar. 1.

Los Angeles, Cal.—The Coca Cola Co., of Atlanta, Ga., reported intends erecting on 4th and Merrick Sts. a 4-story reinforced concrete factory building.

Redondo Beach, Cal.—Louis Molnar and others are reported interested in the company contemplating erecting an ice plant on Gertrude Ave. costing $25,000 and having 15,000 ton capacity.

Calgary, Alta.—We are informed that J. C. Boyle Packing Syndicate, 522-523 Lougheed Bldg., is organized for the purpose of promoting and securing the financing of the J. C. Boyle Packing Co., Ltd., to have an approximate authorized capital, including bond issues of $2,000,000; it is proposed to erect a packing plant in or near Calgary, having a daily capacity of 500 hogs, 200 head of cattle and 200 head of sheep. In addition a large cold storage plant will be constructed for the warehousing of farm products, such as butter, eggs, cheese, etc. The plant will be of brick, reinforced concrete or steel throughout, and contain usual packing house machinery, complete steam power plant, and refrigeration and ice machinery. Architect not yet selected.

MISCELLANEOUS.

See also "Hydraulic Construction and River Improvements."

Items Arranged Geographically

★**Concrete Platform—Boston, Mass.**—Contract awarded Jan. 28 by Boston Transit Comn. (B. Leighton Beal, Secy.) for furnishing material and laying about 4100 sq. yds. concrete platform finish in Washington Station of Dorchester Tunnel, to A. Williams & Co., 3 Cotting St., Boston, at following bid: Furnish and put in place 350 cu. yds. concrete masonry for base, per cu. yd. $6.45; 4000 sq. yds. of granolithic 1-in. wearing surface, 48 cts.; 100 sq. yds. of granolithic wearing surface, from 1 to 2½ in., 70 cts.; 3000 lin. ft. sanitary base, 15 in. high, with curved base, 18 cts., 700 lin. ft. white cement edge, 25 cts.; total $4,962.

Concrete Mixers—Holyoke, Mass.—A. Ferry, Asst. Clk. Bd. of Pub. Wks., writes that the Board has under consideration and has asked for an appropriation of $15,000 to purchase a large boom cement concrete mixer, a hot asphaltic concrete mixer and a small cement concrete mixer.

Underground Wires—Buffalo, N. Y.—The Fire Comrs. will ask for an expenditure of $42,741 for putting fire and police wires underground.

Broken Stone, etc.—Maplewood, N. J.—Bids desired until Feb. 16 by Township Com., Township of South Orange, Maplewood, for about 1,300 tons 1 and 1½ in. trap rock, 200 tons ¾ in. trap rock and 1,500 tons broken trap rock screenings. E. R. Arcularius, Township Clk.

Clearing of Land—Norfolk, Va.—The John L. Roper Lumber Co., Norfolk, Va., has about 100,000 acres of land to be cleared and desires to communicate with contractors who can handle this proposition, as advertised in Engineering Record.

★**Cement—Detroit, Mich.**—Contract has been awarded by Dept. Pub. Wks. to the New Eyptian Portland Cement Co. for 40,000 bbls. Portland cement, at $1.05 per bbl., and to the Wyandotte Portland Cement Co. for 75,000 bbls. of Portland cement, at $1.074 per bbl.

Wire Fence—Ft. Sam Houston, Tex.—Bids received until Feb. 25 by Constructing Quartermaster at this post for constructing woven wire fence around military reservation here.

★**Concrete Wall—Seattle, Wash.**—Contract reported awarded to Finne & Gjarde, Northern Bank Bldg., by School Bd., for construction of a concrete retaining wall at the Central School, 6th Ave. and Marion St., at $20,000.

★**Cranes—Pearl Harbor, T. H.**—Contract for furnishing two 15-ton locomotive cranes for the naval station, Pearl Harbor, reported awarded to American Hoist & Derrick Co., St. Paul, Minn., at $13,939.

Proposals

For Proposals Advertised see Pages 46 and 47.

WATERWORKS.

Bids Close.		See Eng. Record.
Feb. 15.	Distribution System, Mt. Morris, N. Y. Adv. Feb. 6.	Feb. 6
Feb. 17.	Water Wks. Exten., Clearwater, Fla.	Feb. 13
Feb. 18.	Pipe, etc., Youngstown, O.	Feb. 13
Feb. 19.	Boilers, stokers, etc., St. Louis, Mo.	Feb. 13
Feb. 20.	**Laying Pipe, Middletown, N. Y.**	**Jan. 23**
Feb. 20.	Extensions, Yale, Okla.	Feb. 6
Feb. 23.	Extensions, Laramie, Wyo. Adv. Jan. 30, Feb. 6.	Jan. 30
Feb. 23.	Pipe, etc., Ottawa, Ont.	Feb. 13
Feb. 24.	Filtration Work, Cleveland, O.	Feb. 13
Feb. 25.	Meters and Machinery, Chicago, Ill. Adv. Feb. 13.	Feb. 13
Feb. 25.	Pump, Atlantic City, N. J. Adv. Feb. 13.	Feb. 13
Mar. 1.	Pump, Plant for P. O. Bldg., Kansas City, Kan.	Jan. 30
Mar. 2.	Reservoir, Fitchburg, Mass. Adv. Feb. 6.	Jan. 23
Mar. 2.	Valves, etc., Toronto, Ont.	Feb. 13
Mar. 3.	Water Wks., Lyons, N. Y. Adv. Feb. 13.	Feb. 13
Mar. 8.	Mains, East View, O.	Feb. 13
Mar. 9.	Mains, Euclid, O.	Feb. 13
Mar. 9.	Meters, Los Angeles, Cal.	Feb. 13
Mar. 12.	Pipe, Etc., Royal Oak, B. C.	Feb. 6
Mar. 15.	Pumps, Spokane, Wash.	Feb. 13

SEWERAGE AND SEWAGE DISPOSAL.

Feb. 15.	Washington, D. C. Adv. Feb. 6.	Feb. 6
Feb. 15.	Yonkers, N. Y.	Feb. 13
Feb. 16.	**Eldorado, Kan.**	**Jan. 30**
Feb. 16.	Warren, R. I. Adv. Jan. 30.	Jan. 30
Feb. 16.	Toronto, Ont.	Feb. 13
Feb. 16.	Lodi, O.	Feb. 13
Feb. 17.	Brooklyn, N. Y.	Feb. 13
Feb. 17.	Cincinnati, O.	Feb. 13
Feb. 17.	Clearwater, Fla.	Feb. 13
Feb. 18.	Cleveland, O.	Feb. 13
Feb. 23.	**Philadelphia, Pa.**	**Jan. 30**
Feb. 23.	Detroit, Mich.	Feb. 13
Feb. 24.	**Milwaukee, Wis.** Adv. Jan. 30 to Feb. 13.	**Jan. 30**
Feb. 26.	**Philadelphia, Pa.**	**Jan. 30**
Feb. 26.	Mt. Morris, N. Y. Adv. Feb. 13.	Feb. 13
Feb. 26.	Brooklyn, N. Y.	Feb. 13
Mar. 1.	Philadelphia, Pa.	Jan. 30
Mar. 1.	Springfield, Mo.	Feb. 13
Mar. 2.	Sisseton, S. D.	Feb. 13
Mar. 3.	Philadelphia, Pa.	Jan. 30
Mar. 3.	Lyons, N. Y. Adv. Feb. 13	Feb. 13
Mar. 5.	Philadelphia, Pa.	Jan. 30
Mar. 8.	East View, O.	Feb. 13

BRIDGES.

Mar. 15.	Cumberland, R. I. Adv. Feb. 13.	Feb. 13
Feb. 16.	Bedford City, Va.	Feb. 6
Feb. 16.	Cleveland, O.	Feb. 6
Feb. 16.	Nebraska City, Neb.	Feb. 13
Feb. 16.	Vermilion, S. D.	Feb. 13
Feb. 16.	Mora, Minn	Feb. 16
Feb. 17.	**Washington, D. C.** Adv. Jan. 23 to Feb. 13.	**Jan. 23**
Feb. 17.	**Portland, Ore.** Adv. Jan. 23 to Feb. 6.	**Jan. 30**
Feb. 17.	Montrose, Colo.	Feb. 13
Feb. 18.	Ottawa, Ont.	Feb. 6
Feb. 19.	Lawrenceville, Va.	Feb. 6
Feb. 19.	Independence, Ia.	Feb. 13
Feb. 23.	**Portland, Ore.** Adv. Jan. 16 to 30.	**Jan. 16**
Feb. 23.	Cleveland, O.	Feb. 6
Feb. 23.	Knoxville, Ia.	Feb. 6
Feb. 23.	Mobile, Ala. Adv. Feb. 13.	Feb. 13
Feb. 23.	Zanesville, O.	Feb. 13
Feb. 25.	Philadelphia, Pa. Adv. Feb. 13.	Feb. 13
Feb. 26.	Renton, Wash.	Feb. 13
Feb. 26.	Cincinnati, O.	Feb. 6
Feb. 27.	Spokane, Wash.	Feb. 13
Mar. 1.	Elkins, W. Va.	Feb. 6
Mar. 2.	**Illinois**	**Jan. 30**
Mar. 3.	**Illinois**	**Jan. 30**
Mar. 3.	Ft. Monroe, Va. Adv. Feb. 6, 13.	Feb. 6
Mar. 3.	Superior, Wis.	Feb. 6
Mar. 3.	Nelson, Neb.	Feb. 13
Mar. 9.	Illinois	Jan. 30
Mar. 16.	Illinois	Jan. 30
———	Siam Adv. Feb. 6, 13.	Feb. 6

PAVING AND ROADS.

Feb. 15.	**Emmetsburg, Ia.** Adv. Jan. 30.	**Jan. 30**
Feb. 16.	**West Liberty, Ia.**	**Jan. 30**
Feb. 16.	Paulding, O.	Feb. 6
Feb. 16.	Cleveland, O.	Feb. 6
Feb. 16.	Maryland	Feb. 6
Feb. 16.	Belle Plaine, Ia.	Feb. 6
Feb. 17.	Oneonta, N. Y.	Feb. 13
Feb. 17.	Manhattan Beach, Cal.	Feb. 13
Feb. 17.	Cleveland, O.	Feb. 13
Feb. 17.	New York, N. Y.	Feb. 13
Feb. 17.	Cedar Falls, Ia.	Feb. 13
Feb. 17.	Troy, O.	Feb. 13
Feb. 23.	Dundee, Mich.	Feb. 6
Feb. 23.	Ottawa, Ont.	Feb. 13
Feb. 23.	San Bernadino, Cal.	Feb. 13
Feb. 24.	**Paulding, O.**	**Jan. 30**
Feb. 24.	Canton, O.	Feb. 6
Feb. 27.	Wilmington, N. C.	Feb. 6
Mar. 1.	Upper Sandusky, O.	Feb. 13
Mar. 1.	Bonds, Starkville, Miss. Adv. Feb. 13.	Feb. 13
Mar. 2.	Bonds, Jellico, Tenn Adv. Feb. 6, 13.	Feb. 6
Mar. 2.	Wilkesbarre, Pa.	Feb. 13
Mar. 8.	East View, O.	Feb. 13
Mar. 12.	Wilkesbarre, Pa.	Feb. 13

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Feb. 15.	**Electric Hoist, Philadelphia, Pa.** Adv. Jan. 9 to 16.	**Jan. 9**
Feb. 16.	Ditch, Olivia, Minn	Feb. 6
Feb. 17.	**Cofferdam, Seattle, Wash.**	**Jan. 30**
Feb. 17.	Ditch, Ortonville, Minn	Feb. 6
Feb. 18.	**Channel, Edina, Mo.** Adv. Jan. 30, Feb. 6.	**Jan. 30**
Feb. 18.	**Dredging, Boston, Mass.**	**Jan. 30**
Feb. 19.	Pumping Station for Drainage Dist., Quincy, Ill. Adv. Jan. 16 to 30.	Jan. 16
Feb. 19.	Dredging, New York, N. Y. Adv. Feb. 6, 13.	Feb. 6
Feb. 20.	Wharf, Brooklyn, N. Y. Adv. Jan. 23 to Feb. 13.	Jan. 23
Feb. 20.	Gate House for Canal, Buffalo, N. Y.	Feb. 6
Feb. 23.	**Dredge Tender, Galveston, Tex.** Adv. Jan. 30 to Feb. 13.	**Jan. 30**
Feb. 23.	Dredging, Portchester, N. Y. Adv. Jan. 30 to Feb. 13.	Jan. 30
Feb. 23.	Ditch, Slayton, Minn	Feb. 6
Feb. 24.	**Valves, etc., for Dry Dock No. 1, Panama**	**Jan. 9**
Feb. 24.	**Pump. Plant for Dry Dock, Panama**	**Jan. 9**
Feb. 24.	Irrigation, Payson City, Utah Adv. Jan. 30.	Jan. 30
Feb. 24.	Stone for Jetty, Savannah, Ga. Adv. Jan. 30 to Feb. 13.	Jan. 30
Feb. 24.	Lock Gates, Louisville, Ky. Adv. Jan. 30.	Jan. 30
Feb. 25.	Dredging, Toledo, O. Adv. Jan. 30 to Feb. 13.	Jan. 30
Feb. 26.	Tow Boats, Cincinnati, O. Adv. Jan. 30 to Feb. 13.	Jan. 30
Feb. 26.	Drainage, Kansas City, Kan. Adv. Feb. 6, 13.	Feb. 6
Feb. 26.	River Wall, Cedar Rapids, Iowa	Feb. 13
Feb. 27.	Dredge, Kansas City, Kan. Adv. Feb. 13.	Feb. 13
Mar. 1.	Revetment, New London, Conn. Adv. Jan. 23 to Feb. 6.	Jan. 23
Mar. 1.	Ditches, Upper Sandusky, O.	Feb. 13
Mar. 2.	Steel Flue Flats, Cincinnati, O. Adv. Jan. 30 to Feb. 13.	Jan. 30
Mar. 3.	Dredging, Port Aransas, Tex. Adv. Feb. 6, 13.	Feb. 6
Mar. 9.	Dredging, Wilmington, N. C. Adv. Feb. 13.	Feb. 13
Mar. 10.	Canal Excav., Grand Junction, Colo. Adv. Feb. 6.	Feb. 6
Mar. 15.	Pump. Plant for Lock, Seattle, Wash. Adv. Feb. 6, 13.	Feb. 6
Feb. 16.	**Cincinnati, O.**	**Dec. 12**
Feb. 16.	Kenyon, Minn.	Feb. 13
Feb. 16.	West Haverstraw, N. Y.	Feb. 13
Feb. 16.	Evansville, Ind.	Feb. 13
Feb. 16.	Philadelphia, Pa.	Feb. 13
Feb. 17.	Independence, Wis.	Feb. 6
Feb. 17.	**Seattle, Wash.**	**Jan. 30**
Feb. 17.	Shawano, Wis.	Feb. 13
Feb. 17.	Greencastle, Ind	Feb. 13
Feb. 18.	**Lincoln, Neb.**	**Jan. 9**
Feb. 18.	**Indian Head, Sask.**	**Jan. 30**
Feb. 18.	Ripley, O.	Feb. 6
Feb. 18.	Cleveland, O.	Feb. 13
Feb. 19.	Ward's Island, N. Y.	Feb. 6
Feb. 19.	Hartford, Conn.	Feb. 6
Feb. 19.	Middle River, Minn.	Feb. 6
Feb. 19.	Buffalo, N. Y.	Feb. 6
Feb. 20.	**Covington, Tenn.**	**Jan. 16**
Feb. 20.	Easton, Md.	Feb. 6
Feb. 20.	Portland, Ore.	Feb. 6
Feb. 20.	Excelsior, Minn.	Feb. 6
Feb. 20.	Buffalo, N. Y.	Feb. 6
Feb. 20.	Terre Haute, Ind.	Feb. 13
Feb. 23.	Hasbrouck Heights, N. J.	Feb. 6
Feb. 23.	Ithaca, N. Y. Adv. Feb. 6.	Feb. 6
Feb. 23.	Ottawa, Ill.	Feb. 13
Feb. 23.	Long Island City, N. Y.	Feb. 13
Feb. 24.	Forest City, Ia.	Feb. 13
Feb. 25.	Morris, Ill.	Feb. 13
Feb. 25.	Springdale, Pa.	Feb. 13
Feb. 25.	Oklahoma City, Okla.	Feb. 13
Feb. 26.	Montreal, Que.	Feb. 13
Feb. 27.	**Miles City, Mont.**	**Jan. 9**
Mar. 1.	**Champion, O.**	**Jan. 9**
Mar. 1.	**Alliance, O.**	**Jan. 23**
Mar. 1.	Charleston, S. C.	Feb. 13
Mar. 1.	Rome, N. Y. Adv. Feb. 13.	Feb. 13
Mar. 2.	Columbus, O.	Feb. 13
Mar. 3.	Hudson, O.	Feb. 13
Mar. 4.	Newark, N. Y.	Feb. 13
Mar. 4.	Worthington, O.	Feb. 13
Mar. 6.	Lawton, Okla.	Jan. 9
Mar. 6.	Prince Frederick, Md.	Feb. 13
Mar. 8.	Atchison, Kan.	Feb. 13
Mar. 8.	Ft. H. G. Wright, N. Y. Adv. Feb. 13.	Feb. 13
Mar. 11.	Pittsburgh, Pa. Adv. Feb. 6, 13.	Feb. 6
Mar. 15.	Fairmont, W. Va.	Feb. 6
Mar. 15.	Utica, N. Y.	Feb. 13
Mar. 15.	Greenfield, Mass.	Feb. 13
Mar. 15.	East St. Louis, Ill.	Feb. 13
Mar. 22.	Brattleboro, Vt.	Feb. 6
Mar. 25.	Pendleton, Ore.	Feb. 6

PRIVATE BUILDINGS.

Feb. 16.	State College, Pa.	Feb. 6
Feb. 16.	Chicago, Ill.	Feb. 13
Feb. 18.	Brooklyn, N. Y.	Feb. 13
Feb. 21.	Easton, Minn.	Feb. 13
Feb. 23.	Bancroft, Ia.	Feb. 13
Feb. 23.	Cincinnati, O.	Feb. 13
Feb. 25.	**Detroit, Minn.**	**Jan. 30**
Feb. 26.	Lakewood, O.	Feb. 13
Mar. 1.	Schenectady, N. Y.	Feb. 6
Mar. 1.	Milwaukee, Wis.	Feb. 13
Mar. 5.	Emporia, Kan.	Feb. 13
Mar. 25.	**Wilmington, Del.**	**Jan. 9**

NEW INDUSTRIAL PLANTS.

Feb. 17.	**Seattle, Wash.**	**Jan. 30**
Mar. 1.	Alameda, Cal.	Feb. 13

MISCELLANEOUS.

Feb. 15.	**Electric Light Plant, Butler, N. J.** Adv. Jan. 30.	**Jan. 30**
Feb. 15.	Launch, New York, N. Y. Adv. Feb. 6, 13.	Feb. 6
Feb. 16.	**Incinerator Plant, Toronto, Ont.** Adv. Jan. 9.	Jan. 9
Feb. 16.	**Tower Clock in U. S. Court House, Boston, Mass.** Adv. Jan. 30, Feb. 6.	**Jan. 30**
Feb. 16.	Broken Stone, etc., Maplewood, N. J.	Feb. 13
Feb. 17.	**Steel Rails, Etc., Melbourne, Australia**	Jan. 9
Feb. 17.	Cement, Illinois	Feb. 6
Feb. 18.	**El. Ry. Franchise, Santa Barbara, Cal.**	**Jan. 30**
Feb. 18.	Structural Steel, Pipe, Etc., Panama	Feb. 6
Feb. 18.	Electric Railways, Brooklyn, N. Y.	Feb. 13
Feb. 25.	**Gas Franchise, Lake Charles, La.** Adv. Jan. 30 to Feb. 13.	**Jan. 30**
Feb. 25.	Elevator, Clarksdale, Miss.	Feb. 6
Feb. 25.	Wire Fence, Ft. Sam Houston, Tex.	Feb. 13
Feb. 25.	Sect. H, Dorchester Tunnel, Boston, Mass. Adv. Feb. 13.	Feb. 13
Feb. 26.	Electric Railways, New York, N. Y.	Feb. 13
Feb. 27.	**Steel Towers, Washington, D. C.**	Jan. 9
Feb. 27.	**Foundation for Radio Towers, Washington, D. C.**	**Jan. 30**
Feb. 27.	Cranes, Norfolk, Va.	Feb. 6
Mar. 1.	**Freight Lift, Kansas City, Kan.**	**Jan. 30**
Mar. 6.	Street Cleaning, Joliet, Ill.	Jan. 23
Mar. 10.	Engines and Compressor, Ketchikan, Alaska	Feb. 6
Mar. 11.	Elevators, Etc., Pittsburgh, Pa.	Feb. 6
Mar. 13.	**Foundation for Radio Tower, Washington, D. C.**	**Jan. 30**
———	R. R. Equipment, Siam Adv. Feb. 6, 13.	Feb. 6
———	Land to be cleared, Norfolk, Va. Adv. Feb. 13.	Feb. 13

★*Items marked thus give the names of parties awarded contracts.*

New Construction Activities

Good specifications against orders placed last month have enabled the United States Steel Corporation to increase its output to between 64 and 65 per cent of its total capacity. It is pointed out that the gain of 412,000 tons in unfilled orders during January, nearly double that expected, is not entirely responsible for the increase in operation, as it is largely made up of railroad orders against which no specifications have yet been made. The United States Government received bids Feb. 16 for 17,000 tons of steel for the battleship California. Railway bridge contracts pending total about 7500 tons. A school, an apartment house and elevated railroad work pending in New York City will call for 8400 tons of structural steel.

Buildings

A number of large building contracts were awarded last week, including a fifteen-story building in Cleveland, and the Lyon & Healy Building in Chicago, which will cost $750,000. Contracts for a $500,000 building at Atlanta and the $225,000 Y. M. C. A. building in New York City were let. Huntington, W. Va., has contracted for a $285,000 high school. A memorial amphitheatre and chapel in the Arlington National Cemetery has been contracted for at $519,000. The contract for the Center Market in Newark has been awarded at $560,000. At Fresno, Cal., bids have been opened for a $240,000 building for the State Normal School. School boards all over the country seem to be taking advantage of the prevailing contract prices to prosecute building work wherever funds are available, and a number of other good-sized school contracts are noted in this issue. Plans have been filed for a number of large buildings, including an $800,000 hotel a $1,000,000 addition to the Hotel McAlpin and a $500,000 apartment house in New York City alone. Plans are being prepared for a $350,000 office building at Chicago and a $1,500,000 hotel in Detroit. At Cleveland competitive plans have been asked for a $2,000,000 public library.

Bridges and Roads

Bids are desired on 7000 tons of structural steelwork for the Brooklyn elevated lines. According to press reports the city of Philadelphia desires bids on a $300,000 railroad-crossing bridge. At Toronto, Ont., a contract for constructing a section of the Bloor Street viaduct has been awarded at $298,500. It is reported that the city of Detroit is considering a $1,200,000 bridge at Belle Isle. At Baltimore contracts totaling more than $590,000 were awarded for paving work last week. Greenville, Texas, let a contract for constructing 40 mi. of concrete roads at $400,000, and McKinney, Texas, awarded a $55,000 contract for improving road district 2. At Boston bids on a $43,000 paving contract were opened, and at Ottumwa, Iowa, a paving contract of $42,310 was awarded. Los Angeles has awarded paving contracts totaling $852,000. Bids are desired on road work at Clarkdale, Miss., Ottawa, Ohio, Painesville, Ohio, and Davenport, Wash. Bids are desired for $100,000 road bond issues at Sanford and at Greensboro, N. C. At Redland, Cal., $1,750,000 worth of highway bonds have been sold. It is reported that contracts for 200 mi. of the road work to be done near Tavares, Fla., will probably be let in March. The city council of St. Paul, Minn., contemplates $238,000 worth of street paving, and the city of Spokane will spend $228,000 on paving and concrete bridge work. The Oregon State Legislature has approved a plan involving the spending of $450,000 on road work this year.

Sewers and Waterworks

Bids opened recently on two sewer sections in Brooklyn indicate that this work will cost more than $584,000. The low bid on a third section of the Brooklyn sewer work was $159,630. The low bid on section 8 of Passaic Valley sewer was $236,680 for constructing the sewer in open trench. The total of the bids for the two sections of the Gunner's Run sewer at Philadelphia was $251,000. Bids are desired for constructing 13 mi. of sanitary sewer at Butte, Mont. A smaller contract is also to be let for sewer work next week in Baltimore. It is further said that specifications for $250,000 for further sewer work out of the $3,000,000 loan approved last November have been passed by the Board of Awards at Baltimore. Plans have been completed for considerable sewer work at Syracuse, N. Y., and Harrison, Ark. In addition to the sewer work at Harrison it is reported that $50,000 will be spent for waterworks. Rochester, N. Y., has provided for the construction of a $145,000 sewer tunnel. Plans have been submitted for the $50,000 reservoir at Coshocton, Ohio, and it is expected that the work will be advertised shortly. A $900,000 bond issue for waterworks improvements at Corpus Christi, Texas, has been approved by the State attorney general. At Lakeland, Fla., Ironton, Ohio, and Montrose, Colo., bids are desired on good-sized issues of waterworks bonds. Bids are desired for constructing a 4,500,000-gal. concrete storage reservoir at Joliet, Ill. Boston desires bids on 53 tons of cast-iron pipe. Press reports state that bids will soon be received for $500,000 worth of improvements to the South Philadelphia water supply. The lowest bid opened for laying 4-ft. water mains on Fifty-third and Fifty-seventh Streets, Philadelphia, was $42,500, while the low bid for the new sedimentation basin was $443,440. The contract for this new sedimentation basin was awarded to Snare & Triest Company of New York City.

Miscellaneous

It is reported that the Canadian Northern Railway will enlarge its yards at Port Arthur, Ont., adding about 40 mi. of track. Press reports say that bids are desired in Philadelphia for $1,000,000 worth of grade-crossing elimination work. Estimates are desired on a railway coal transfer plant at Mount Union, Pa. The Southern Pacific Company is surveying 125 mi. of extensions near Beeville, Texas. Bates & Rogers have secured the contract for Government Dam 33 on the Ohio River. A $40,000 contract for grading on the new $1,000,000 terminal project at Savannah, Ga., has been let. At Barstow, Texas, a $476,000 contract for an irrigation reservoir has been awarded. Bids are desired at the U. S. Engineer office, New York City, for 32,000 bbl. of cement, and bids are likewise desired at Winnipeg, Man., for between 60,000 and 150,000 bbl. The contract for the Government breakwater at Wilmington, N. C., has been awarded to the D. L. Taylor Company at $1,073,358. The engineer's report estimates at $804,000 the leased cost of an irrigation dam proposed near Phoenix, Ariz.

Contracting News

Of Special Interest to Engineers, Contractors, Builders and Manufacturers of Engineering and Building Supplies

WATERWORKS.

Items Arranged Geographically

Boston, Mass.—Bids desired until Feb. 26 by D. Frank Doherty, Supt. Supplies, for 84,450 lbs. c. i. special castings; also separately for semi-steel special castings as follows: 12 20 x 12 branches, weight, 22,240 lbs.

★**Boston, Mass.**—Contract for removing coping, excavating and grading Parker Hill reservoir awarded to Chas. J. Jacobs Co., 107 Terrace St., Roxbury; cost$10,000.

Lenox, Mass.—Bids will probably be received in March for construction of water works, to cost about $30,000. Engineer, A. B. Farnham, of Pittsfield.

Marlboro, Mass.—The Fire Dist. reported to have voted to build a concrete standpipe on Barden Hill, to cost $30,000. A. C. Howes, Supt. Water Dept.

Salem, Mass.—Bids desired until Mar 10 by Salem and Beverly Water Supply Bd. (N. Matthews, Chmn.) at City Hall, Salem, for constructing additional works for water supply from the Ipswich River, including 1st section—construction of a dredge, 120,000 cu. yd. of excav., 2870 ft. of conduit and accessories; 2d section—an electric generator, driven centrifugal pump, a steam turbine driven generator, transmission line, transformers, switchboard and wiring, advertised in Engineering Record. Hazen, Whipple & Fuller, Consulting Engrs., 30 E. 42d St., New York.

Sturbridge, Mass.—C. F. Chamberlin, Town Clk., writes that a committee has been appointed with Jos. La Flamme as chairman, to investigate question of constructing water works and report on the question at the town meeting, Feb., 1916; estimated cost, $30,000.

Newport, R. I.—A new impounding reservoir is proposed. E. W. Kent, Gen. Mgr. and Engr.

Bridgeport, Conn.—It is reported that Bridgeport Hydraulic Co. is planning extension of its water service to Huntington.

Ballston Spa, N. Y.—At the annual charter election the taxpayers will be asked to vote $10,000 bonds for purchase and installation of water meters.

★**Buffalo, N. Y.**—Contract reported awarded to the Skinner Engine Works for a side crank engine for the pumping station electric plant, at $30,975.

Geneva, N. Y.—It is proposed to install a pump of 4,000,000 gals. capacity. H. J. Seybold, Supt.

Lewiston, N. Y.—Village Trustees, reported to have engaged Alonzo Peabody, of Buffalo, to prepare plans for water works. Question to be submitted Mar. 16.

New York, N. Y.—Bids desired until Mar. 1 by William Williams, Comr. Water Supply, Gas and Electricity, for furnishing, delivering, unloading, stacking and storing c. i. pipe, special and box valve castings, valves and double nozzle fire hydrants for Boro. Queens; security $4,800; also removing, relaying, hauling and laying water mains and appurtenances in Exterior, E. 135th and E. 138th Sts. and Rider Ave., Boro. Bronx. Security $3,750.

Oneida, N. Y.—It is reported that plans for construction of a new water system are being considered by Water Board which provide for a preliminary survey of a pipe line between this city and Florence Creek, a distance of 20 miles, at a cost of about $500,000; after survey is completed question will be voted upon at a special election.

Cedargrove, N. J.—Bids desired until Feb. 24 by Com. on Pub. Bldgs., Co. Bd. Chosen Freeholders, Newark (Aug. L. Lacombe, Chmn.) for furnishing material and installing an addition to the water supply system at Essex County Hospital, Overbrook, Cedargrove Township, including artesian wells, centrifugal pumps, air compressor, piping, etc. Runyon & Carey, Engrs., 845 Broad St., Newark.

Hawthorne, N. J.—Bids were opened Jan. 29 by Borough Comrs. for about 3150 ft. 14-in., 12,460 ft. 12-in., 20,900 ft. 8-in. and 47,180 ft. 6-in. c. i. pipe or approximately 2174 tons c. i. pipe and branches as follows: R. D. Wood & Co., Philadelphia, Pa., $44,463; U. S. Cast Iron Pipe & Fdry. Co., Philadelphia, $45,208; John Fox & Co., New York, $45,552; Standard Cast Iron Pipe & Fdry. Co., Bristol, Pa., $47,199; Warren Fdry. Co., Phillipsburg, N. J., $49,398; Central Fdry. Co., New York, $50,170. John A. Shea, Boro. Clk.; H. J. Harder, Engr., Paterson.

Peapack, N. J.—The Borough Councils of Peapack and Gladstone are reported to be considering construction of waterworks. Clarence E. Case, of Somerville, Boro. Attorney, submitted to Council a report on purchase of plant of Bedminster Water Co. Borough Engineer F. S. Tainter estimates cost of construction of waterworks at $57,000.

Perth Amboy, N. J.—Bids desired until Mar. 24 by Bd. Water Comrs. (Peter Kroeger, Clk.) for furnishing and erecting a 12,000,000-gal. pumping engine, advertised in Engineering Record. S. J. Mason, Engr. of Bd.

Philadelphia, Pa.—Press reports state that bids will soon be received by M. L. Cooke, Dir. Dept. Pub. Wks., for South Philadelphia water supply improvements, to cost $500,000.

★Contracts reported awarded as follows (bids opened Feb. 9 by Dept. of Pub. Wks.): McNichol Paving & Constr. Co., for laying 48-in. water mains on 53d and 57th Sts., from Girard Ave. to Market St., at $42,597; R. D. Wood & Co., for pipe, at $18.69 per ton; the Chapman Valve Co., of Indian Orchard, Mass., for valves.

★**Pittsburgh, Pa.**—Contract awarded by Dept. of Pub. Wks. (Robt. Swan, Dir.) to Booth & Flinn, Ltd., Pittsburgh, Pa., for laying two 24-in. steel pipe lines across North Side Point Bridge, at $10,212 (bids opened Feb. 2).

Riverside, Pa.—There is reported to be a movement on foot here looking to the construction of water works.

★*Items marked thus give the names of parties awarded contracts.*

Wilmington, Del.—The Bd. of Water Comrs. (Edgar M. Hoopes, Jr., Ch. Engr.) reported to be considering issue of $350,000 for water works improvements.

South Boston, Va.—Plans and specifications wanted for clear water, sewer improvements and street paving for purpose of calling an election for bond issue. W. L. Penick, Mayor.

Wilmington, N. C.—City Council reported to be considering the question of issuing $50,000 bonds for water works improvements.

Southport, N. C.—H. P. Hagan, City Clk., writes that the proposed water works will cost about $27,000 and will include two 500-gal. pumps, 100,000-gal. standpipe, 100,000-gal. reservoir, 20,000 ft. pipe, 27 hydrants and 50 valves. Engineers, J. B. McCrary Co., Atlanta, Ga.

★**Columbia, S. C.**—Contracts reported awarded by City Council on Jan. 29 as follows: For water and sewer mains, to Hope Eng. Co., of Pittsburgh, Pa., at $28,405; furnish pipe for sewer lines, Lorick & Lawrence, of Columbia, at $5,543; furnish iron pipe for water mains, Boyle Bros., Baltimore, Md., at $26,833; valves, fire hydrants and fixings, Columbian Iron Works, Chattanooga, Tenn., $3,061. F. C. Wise, Engr. Supt.

Walterboro, S. C.—Bonds in the sum of $45,000 reported sold to be used for enlargement and extension of water works, constructing sewer system and electric light plant. H. W. Black, Jr., Chmn. Bd. Pub. Wks.

Woodruff, S. C.—Bonds to be used for constructing water works and sewer system have just been sold, and the J. P. McCrary Co., of Atlanta, Ga., has been engaged to make the survey.

Tallapoosa, Ga.—There is reported to be a movement on foot to purchase water works and construct a sewer system.

Lakeland, Fla.—Bids desired until Mar. 18 by Bd. Bond Trus (C. D. Clough, Secy.) for $130,000 water and light bonds.

Nashville, Tenn.—Robt. Elliott, Comr. of Water Wks., in his annual report recommends installation of a 20,000,000 gal. pump.

Sebree, Ky.—Press reports state that new bids will be received by City Clerk until Mar. 1 for the purchase of $14,000 water works bonds.

Columbus, O.—Lowest bid opened Feb. 5 by Dept. Pub. Service (P. B. Kemper, Secy.) for valves and valve boxes submitted by Bourbon Copper & Brass Co., Cincinnati, at $5,517.

Coshocton, O.—Plans have been submitted to city by Chester & Fleming, Pittsburgh, Pa., for a 3,000,000-gal. reinforced concrete covered reservoir. Council has started legislation for appropriating $50,000 for this work, which will be advertised shortly.

East Youngstown, O.—Chester & Fleming, of Pittsburgh, Pa., have submitted a report to Town Council, together with plans and estimates for a complete waterworks system and filtration plant which will probably be constructed this summer.

Elyria, O.—Bids desired until Mar. 3 by County Comrs. (F. L. Ellenberger, Clk.) for furnishing material and constructing steel aerial water tank and tower and fire protection system at County Infirmary, about 2 miles from Elyria. T. I. Gibson, Co. Surveyor.

Ironton, O.—Press reports state that bids are desired by City Clerk for purchase of $250,000 water works bonds.

Shadyside, O.—Citizens reported to have voted Feb. 9 to issue $35,000 bonds for construction of waterworks.

South Newburgh, O.—Bids desired until Feb. 27 by H. H. Bohning, Village Clk., for furnishing material and constructing water mains in Granger Rd. Ralph Hecker, Village Engr., Leader-News Bldg., Cleveland.

Toledo, O.—Bids will be opened Mar. 18 by A. W. Bordman, Dir. Pub. Service, for furnishing material and constructing a high pressure fire service pumping station, including furnishing of machinery, etc., advertised in Engineering Record. W. J. Sherman, Consulting Engr., Toledo. Local press reports state that about $50,000 will be spent for improvements at the filtration plant.

Youngstown, O.—Bids desired until Feb. 25 by Director Pub. Service (H. C. Fox, Clk.) for furnishing 3000 or less water meters.

★**Saginaw, Mich.** — Contract awarded Feb. 9 to Massillon Iron & Steel Co., Massillon, O., at $23 per ton for c.-i. pipe and specials 2¾ cts. per lb. R. F. Johnson, Comr. Light, Water and Sewers.

Schoolcraft, Mich.—O. A. Fellows, City Clk., writes citizens voted Feb. 9 to issue $22,000 bonds for water works. Plans being prepared by Smith & Boulay, Nasby Bldg., Toledo, O.

Joliet, Ill.—Bids desired by City Clerk until 7.30 P. M. Feb. 23 for constructing concrete storage reservoir of 4,500,000 gal. capacity.

Viola, Ill.—Bids desired until Mar. 1 by B. D. Baxter, Village Pres., for $12,000 waterworks bonds, advertised in Engineering Record.

Janesville, Wis.—A bond issue of $265,000 being prepared by city to cover cost of water works to be purchased by city. C. V. Kerch, City Engr.

Whitewater, Wis.—Bids desired by A. N. Savee, City Clk., until Feb. 27, for 110 ft. reinforced concrete reservoir roof. W. G. Kirchoffer, Engr., Madison.

Linn Grove, Ia.—C. A. Fulton, City Clk., writes citizens voted Feb. 10 to issue $9,000 bonds for construction of water works.

Low Moor, Ia.—Plans being prepared by Iowa Eng. Co., Clinton, for water works.

New Ulm, Minn.—Bids desired until Mar. 2 by Wm. Backer, City Clk., for furnishing material and equipping a deep-well pump-head, including all electrical apparatus.

South Stillwater, Minn.—Bids desired until Mar. 2 by Oscar Hunke, Village Recorder, for constructing additions to water supply to include concrete reservoir, brick and concrete pumpnouse, pumping machinery, distribution pipe line system, covering approximately 5150 ft. 12, 8 and 4-in. pipe, hydrants, specials, etc.

St. Paul, Minn.—Bids desired until Feb. 25 by Bd. Control (Oliver J. Tong, Secy.) for constructing deep well for City and County Hospital, also separately for pump equipment and concrete reservoir.

McCune, Kan.—Bids for construction of a complete system of water works desired about Mar. 20, to include deep well, reservoir, tower and pipe line. Engineers, Henrici, Kent & Lowry Eng. Co., Reserve National Bank Bldg., Kansas City, Mo.

Mineral, Kan.—Bids reported desired until Feb. 25 by J. B. Vallenbois, City Clerk, for water works improvements, including deep well, 20 h.p. oil or gas engine, double plunger deep well pump. Sansom & Funk, Engrs., 110 E. 4th St., Joplin, Mo.

★**Wellington, Kan.**—Contract awarded by City Comrs. for machinery and apparatus for water works extensions as follows: 400 k.w. power factor turbo alternator units, complete with jet condensers piping, separately driven exciter sets, motors, transformers, with switchboard apparatus, remote control contractor panels, etc., to Westinghouse Electric & Mfg. Co., at $30,700; 3 200-hp water tube boilers and superheaters, to Murray Iron Wks., at $8,400; two 1000 G. P. M. duplex power pumps, 1 1500 G. P. M. turbine fire pump, feed water heater, recording Venturi meter, feed pumps, spray nozzles and piping, to Henry R. Worthington, $8,700. Benham Eng. Co., Oklahoma City, Engrs. Contract for power house building substation power house, well houses and reservoir will soon be let.

Ceresco, Neb.—Plans being prepared by Grant & Fulton, Lincoln, Neb., for water works, to cost about $10,000.

Caruthersville, Mo.—Citizens voted $62,000 bonds for new sewer system and water improvements, from plans of Frank L. Wilcox, of St. Louis.

★**Sedalia, Mo.**—Contracts awarded by Sedalia Water Co. for a 3,000,000-gal. mechanical filter plant to the Pittsburgh Filter Mfg. Co., Pittsburgh, Pa., and a reinforced concrete covered clear water reservoir to Johnson & Sons, Sedalia. Work was designed and is to be supervised by Chester & Fleming, of Pittsburgh, Pa.

★**St. Louis, Mo.**—Contract reported awarded by the Bd. Pub. Service for a turbine engine and centrifugal pump for city water works to James Cameron Co., Pittsburgh, Pa., at approximately $42,000.

Ashdown, Ark.—Bids desired until Feb. 25 by Commissioners of Water Wks. Dist. No. 1 for $45,000 bonds. A. D. Dulaney, Atty.

Harrison, Ark.—Preliminary plans and report completed by Albert C. Moore, Frisco Bldg., Joplin, Mo., for water works to cost about $100,000. Only about half to be constructed at this time.

Rector, Ark.—This city has sold $29,000 water and $27,000 sewer bonds. Frank L. Wilcox, St. Louis, Engr.

Corpus Christi, Tex.—The State Attorney General has approved a $900,000 bond issue for water works improvement, enlargement and extension.

Denton, Tex.—Citizens reported to have voted $112,000 bonds for improvement to water works and streets and fire department.

Magnolia Park (P. O. Houston), Tex.—Bids desired until Feb. 23 by W. H. Farrington, City Secy., for furnishing material and constructing a system of water works. M. Griffin O'Neill & Sons, Engrs., Praetorian Bldg., Dallas.

Mineola, Tex.—State Attorney General reported to have approved an issue for $24,500 water works bonds.

Montrose, Colo.—Bids desired by City Council until Feb. 25 for purchase of $90,000 bonds to be issued for constructing, reconstructing and extending the water works. P. M. Pinkerton, City Mgr.

★**Rocky Ford, Colo.**—Contract awarded Feb. 2 by Swink Ditch & Reservoir Co. for constructing certain embankments on Swink Reservoirs Nos. 2 and 5, 111,000 cu. yds., to Mishon & Mellard, of Pueblo.

★**Cordell, Okla.**—Contract awarded Feb. 8, water works improvement, to Heinrichouse Constr. Co., Carmen, at $64,151. Next three lowest bids: Municipal Eng. & Constr. Co., Oklahoma, $70,713; N. S. Sherman Machine & Iron Wks., Oklahoma City, $71,677; Tonkawa Constr. Co., Kansas City, Mo., $75,577. J. Reid, City Clk. Engineers, Benham Eng. Co., Oklahoma City.

Jennings, Okla.—A. McFarlant, of Tulsa, is reported to have been engaged to prepare plans for water works, to cost $25,000.

Azusa, Cal.—Tentative plans reported completed for proposed waterworks.

Sacramento, Cal.—Frank C. Miller, City Engr., writes that a board of engineers has been appointed including Prof. Chas. Gilman Hyde, of University of California, and Geo. H. Wilhelm, of San Francisco, to assist him in passing upon plans for constructing a system of water mains and a high pressure water system for city of Sacramento, to cost $1,328,600, bonds for which were voted two years ago; the same board will probably also pass upon plans for new sewers voted under bond issue in amount $1,032,000; a total of $2,361,600 is to be expended.

San Diego, Cal.—J. B. Lippincott, of Los Angeles, and M. M. O'Shaughnessy, City Engr. of San Francisco, have been appointed by the city of San Diego to review the available water supply and investigate the cost of additional development for that city.

San Fernando, Cal.—An election will probably soon be held to vote on issuing bonds to purchase water works, and $32,000 for improving same.

Salt Lake City, Utah.—Local press reports state that Sylvester Q. Cannon, City Engr., has recommended water works improvements as follows: To complete 5th St. reservoir, $25,000; to complete Lake Phoebe dam, $50,000; to carry on and if possible to complete the Twin Lakes dam this year, $70,000; to begin excavation work on City Creek reservoir, $10,000; excavation work on the dam in Parley's canyon, $25,000.

London, Ont.—City Council has authorized purchase of 2 water wheels turbine pumps and synchronous motors for Spring Bank pumping station.

Toronto, Ont.—Bids desired until Apr. 13 by T. L. Church (Mayor), Chmn. Bd. Control, for furnishing automatic valves and check valves, advertised in Engineering Record.

Philippine Islands.—Bids desired until Mar. 9 by Col. S. W. Roessler, Corps Engrs., U. S. A., Army Bldg., New York, N. Y., for 20 tanks, from 2250 gal. to 5700 gal. capacity for Philippine Islands, advertised in Engineering Record.

★**Philadelphia, Pa.**—Following are bids opened Feb. 9 by Bureau of Water, Dept. of Pub. Wks., for Contract 256, sedimentation basin at Torresdale filters: (a) Snare & Triest Co., 233 Bway., New York, $443,440 (awarded contract); (b) American Paving & Constr. Co., 211 S 9th St., Philadelphia, $590,500; (c) Keystone State Constr. Co., 704 Pennsylvania Bldg., Philadelphia, $481,280; (d) T. L. Eyre, 1537 Commercial Trust Bldg., Philadelphia, $500,924; (e) Carl R. Camp, 409 Crozier Bldg., Philadelphia, $448,364.

	*(a)	(b)	(c)	(d)	(e)
600,000 cu. yds. earth excav.	$0.29	$0.30	$0.24	$0.34	$0.22
500 cu. yds. rock excav.	3.00	15.00	4.00	5.50	8.92
30,000 tons riprap, Class A	.80	.75	1.10	1.00	1.15
20,000 tons riprap, Class B	1.22	3.25	1.50	2.00	1.98
750 M ft. timber and cribbing, Class A	42.00	48.00	53.00	46.00	47.12
2,500 M ft. timber and cribbing, Class B	39.00	48.00	48.00	36.00	41.51
6,000 bbls. Portland cement	1.20	1.25	1.50	1.50	1.30
3,500 cu. yds. concrete, Class A	9.00	22.00	11.00	5.50	9.24
500 cu. yds. concrete, Class B	12.00	22.00	11.00	8.20	10.77
100,000 lbs. reinforcing rods	.027	.04	.05	.04	.037
70,000 lbs. structural steel	.027	.06	.05	.04	.033
75,000 lbs. wrought, cast and steel fixtures	.04	.10	.07	.06	.054
Piping and accessories, solution tank (lump sum)	7,400	12,200	10,000	10,836	10,222
500 lin. ft. 4-in. water supply pipe (except excav.)	.70	1.00	1.00	1.50	1.82
Buildings and all accessories (lump sum)	21,000	22,000	25,000	26,595	21,176
5,000 lin. ft. yellow pine plumb piles	.40	.40	.50	.50	.51
2,300 lin. ft. railroad track	1.00	3.00	1.00	1.73	1.24
Hoist and conveyor (lump sum)	1,000	600	1,100	2,724	969
Pitometers and recorders (lump sum)	2,400	2,500	2,700	3,720	2,692
Four 48 x 72 in. sluice gates and frames, ea.	450	400	420	1,230	375.86

SEWERAGE AND SEWAGE DISPOSAL.

Items Arranged Geographically

★**Boston, Mass.**—The Mayor Feb. 11 approved a contract with M. Russo & Son for sewers in East Albany, South Kingston and Lincoln Sts., at $18,743. (Bids opened Jan. 26.)

Lexington, Mass.—At the special town meeting Feb. 10, $100,000 was appropriated for construction of a sewer system. Geo. E. Brigg, Chmn. Sewer Com.

Brooklyn, N. Y.—Bd. of Estimate has appropriated $10,402 for sanitary sewers, mains and sewage pumping station in Prospect Park, under the jurisdiction of Commissioner Raymond V. Ingersoll. This will do away with cesspools at the menagerie comfort stations and other buildings in the park.

Brooklyn, N. Y.—Lowest bid opened Feb. 10 at the office of the President, Brooklyn Boro., for constructing sewers in Tompkins Ave., Fulton St. and Brooklyn Ave. to south of Fulton St., on proposition A, was submitted by Litchfield Constr. Co., 23 Flatbush Ave., at $292,286. Their unit prices on this proposition are as follows:

2737 Lin. ft. 162-in. sewer	$62.89
818 Lin. ft. 126-in. sewer	55.88
17 Lin. ft. 90-in. sewer	30.00
918 Lin. ft. 18-in. sewer	4.00
1117 Lin. ft. 18-in. sewer	3.00
1884 Lin. ft. 15-in. sewer	2.90
2928 Lin. ft. 12-in. sewer	2.50
4 Manholes, class A	250.00
4 Manholes, class C	50.00
55 Manholes, class D	45.00
1 Manhole, class F	65.00
170 House connection drains (reconnected)	2.00
1 Storm overflow connection, B	1,500.00
1 Overflow conn.	2,000.00
26 Sewer basins	25.00
1 Sewer basin rebuilt	100.00
1800 M ft. sheet	25.00
100 cu. yd. con., class B	5.00
100 Bbl. cement	1.50
10 Cu. yd. brick masonry	15.00

Lowest bid on proposition B of the above Tompkins Ave., etc., sewer was submitted by J. F. Cogan Co., 2 Franklin St., Brooklyn, an approximate total of $305,147; their unit prices on proposition B are as follows:

2737 Lin. ft. 162-ft. sewer	$85.00
818 Lin. ft. 126-in. sewer	71.00
17 Lin. ft. 90-in. sewer	30.00
25 Lin. ft. 24-in. sewer	5.00
12 Lin. ft. 15-in. sewer	4.00
2 Manholes, class A	400.00
3 Manholes, class C	300.00
3 Manholes, class D	35.00
2 Storm overflow connection, A	2,000.00
1 Storm overflow connection, B	1,500.00
1 Overflow connection, C	1,500.00
200 M ft. planking	20.00
110 M ft. sheeting	.01
4000 Cu. yd. brick masonry	.01
100 Cu. yd. concrete, class B	6.50
100 Bbl. cement	1.50
10 Cu. yd. brick masonry	10.00

Brooklyn, N. Y.—Lowest bid opened Feb. 10 at the office of the President, Brooklyn Boro., for construction of sewers in Macon St., Lewis Ave., Chauncey St., Fulton St. and Troy Ave., submitted by J. F. Cogan Co., 2 Franklin St.; they bid for proposition A, $292,146. Their unit prices on this proposition are as follows:

767 Lin. ft. 144-in. sewer	$73.00
2626 Lin. ft. 138-in. sewer	73.00
32 Lin. ft. 114-in. sewer	60.00
327 Lin. ft. 96-in. sewer	40.00
92 Lin. ft. 90-in. sewer	28.00
11 Lin. ft. 76-in. sewer	26.00
30 Lin. ft. 42-in. sewer	8.00
50 Lin. ft. 36-in. sewer	8.00
80 Lin. ft. 25-in. sewer	5.00
603 Lin. ft. 15-in. sewer	3.00
5080 Lin. ft. 12-in. sewer	2.00
2 Manholes, class A	300.00
6 Manholes, class C	200.00
46 Manholes, class D	35.00
3 Manholes, class E	50.00
1 Bellmouth at Chauncey St.	3,000.00
2 Overflow connections, A	300.00
1 Overflow connection, B	250.00
1 Drop chamber, A	1,200.00
1 Drop chamber, B	2,400.00
218 House connection drains	5.00
13 Sewer basins	25.00
1 Sewer basin rebuilt	90.00
2150 M ft. sheeting	.01
100 Cu. yd. concrete, class B	8.00
10 Cu. yd. brick masonry	10.00
100 Bbl. cement	1.50

Lowest bid on proposition B of the above Macon St., etc., sewer, also submitted by J. F. Cogan Co., 2 Franklin St., at an approximate total of $289,437, their unit prices on this proposition being as follows:

767 Lin. ft. 144-in. sewer	$76.00
2626 Lin. ft. 138-in. sewer	75.00
32 Lin. ft. 114-in. sewer	69.00
327 Lin. ft. 96-in. sewer	40.00
92 Lin. ft. 90-in. sewer	40.00
11 Lin. ft. 78-in. sewer	26.00
2 Manholes, class A	400.00
6 Manholes, class C	300.00
2 Manholes, class E	50.00
1 Bellmouth at Chauncey St.	3,000.00
2 Overflow connections, A	500.00
1 Overflow connection, F	600.00
1 Drop chamber, E	1,800.00
1 Drop chamber, B	2,400.00
94 M ft. planking	25.00
120 M ft. sheeting	.01
4000 Cu. yd. concrete	.01
100 Cu. yd. concrete, class B	8.00
100 bbl. cement	1.50
10 Cu. yd. brick masonry	10.00

★Items marked thus give the names of parties awarded contracts.

Brooklyn, N. Y.—Following are 4 lowest bids opened Feb. 10 at the office of the President, Brooklyn Boro., for constructing sewers in Prospect Pl., Nostrand Ave., Dean St. and Brooklyn Ave.; (a) Newman & Carey Co., 215 Montague St., Brooklyn, $159,630 (lowest bidder); (b) Ward & Tully, $175,583; (c) Degnon Contr. Co., $182,464; (d) J. F. Cogan Co., $183,922.

	(a)	(b)	(c)	(d)
1,153 lin. ft. 90-in. brick sewer	$28.00	$26.10	$36.00	$35.00
798 lin. ft. 78-in. brick sewer	26.00	23.25	31.00	30.00
780 lin. ft. 72-in. brick sewer	24.00	21.50	27.25	28.00
886 lin. ft. 66-in. brick sewer	22.00	18.50	26.00	25.00
1,793 lin. ft. 60-in. brick sewer	20.00	17.85	23.50	21.00
976 lin. ft. 48-in. brick sewer	15.00	11.85	17.50	19.00
891 lin. ft. 42-in. brick and concrete sewer	14.00	10.40	15.30	16.00
21 lin. ft. 42-in. brick and concrete sewer	7.50	15.00	15.30	8.00
40 lin. ft. 30-in. brick and concrete sewer	8.25	12.00	11.00	5.50
22 lin. ft. special sewer A	10.00	15.00	24.00	8.00
36 lin. ft. special sewer B	7.00	10.00	24.00	7.50
39 lin. ft. special sewer C	9.00	12.00	24.00	7.00
4 manholes, Class A	150.00	110.00	110.00	80.00
11 manholes, Class E	55.00	55.00	100.00	55.00
2 overflow manholes F and J	100.00	100.00	250.00	90.00
3 overflow manholes G, H, I	200.00	150.00	300.00	125.00
1 overflow manhole K	155.00	200.00	300.00	150.00
1 overflow manhole L	220.00	250.00	800.00	250.00
1 overflow manhole M	225.00	500.00	500.00	400.00
1 special manhole N	120.00	250.00	100.00	200.00
2 sewer basins	105.00	175.00	200.00	90.00
12 sewer basins reconnected	15.00	50.00	50.00	25.00
1,200 M ft. sheeting and bracing	.01	25.00	.01	.01
6 M ft. plank	30.00	35.00	.01	25.00
100 cu. yds. "B" concrete	6.00	8.00	8.00	8.00
10 bbls. cement	2.00	2.00	2.00	1.50
10 cu. yds. brick masonry	15.00	15.00	14.00	10.00
1,000 lbs. steel rods	2.50	4.00	3.00	.04

Newark, N. J.—Following are unit prices of 4 lowest bids opened Feb. 9 by the Passaic Valley Sewerage Comrs. (Wm. M. Brown, Ch. Engr.), Essex Bldg., Newark, for Sect. 8, northerly portion, main intercepting sewer, alternate methods, tunnel and open trench. (Contract was awarded on open trench method):

Sect. 8, Tunnel Method: (a) Oscar Daniels Co., New York, $297,800; (b) Arthur McMullen, New York, $320,350; (c) Chas. A. Haskin, Boston, Mass., $328,548; (d) Booth & Flinn, Ltd., New York, $330,114.

	(a)	(b)	(c)	(d)
3,292 lin. ft. excav. in earth, rock or earth and rock together, in compressed air tunnel, for 135-in. circular concrete sewer, including furnishing and use of ¾-full reinforcement plates, etc.	$70.00	$72.50	$79.00	$79.50
6,600 cu. yds. concrete masonry, in compressed air tunnel and shafts, with Portland cement mortar, including setting iron and steel, and appurtenant work	10.00	12.00	10.00	10.00
100 cu. yds. brick masonry, in shafts, manholes, and elsewhere, laid with Portland cement mortar and appurtenant work	10.00	20.00	20.00	18.00
12,000 lbs. steel, for concrete reinforcement, in place	.03	.04	.04	.05

★Sect. 8, Open Trench Method: (a) Mason & Hanger Co., New York, $236,680 (awarded contract); (b) Oscar Daniels Co., New York, $269,635; (c) N. Y. & N. J. Constr. Co., Newark, $288,160; (d) Culp Co., Inc., Paterson, $291,111.

	*(a)	(b)	(c)	(d)
1,555 lin. ft. excav. and refill, in trench, for 132-in. semi-elliptical sewer, including all appurtenant work	$50.00	$61.00	$72.00	$88.22
1,737 lin. ft. earth excav. and refill, in trench, for 126-in. semi-elliptical sewer, including all appurtenant work	50.00	60.00	60.00	88.22
500 cu. yds. rock excav., in trench	4.00	2.00	3.00	.01
8,500 cu. yds. concrete masonry, with Portland cement mortar, in place, in trench, and all appurtenant work	8.00	8.00	8.00	.01
100 cu. yds. brick masonry and appurtenant work, in manholes and elsewhere, laid with Portland cement mortar	16.00	12.00	20.00	.01
12,000 lbs. steel, for concrete reinforcement, in place	.04	.03	.04	.05

Binghamton, N. Y.—At a recent conference between city and State officials and Senator Wm. H. Hill, representing the village of Lestershire, an agreement is reported to have been reached by which Binghamton and Lestershire will unite in constructing a sewage disposal plant; estimated cost of an intercepting sewer system and sewage disposal plant said to be $500,000. John A. Giles, City Engr., Binghamton.

Fredonia, N. Y.—At the Spring election the citizens will be asked to vote on the question of issuing $40,000 bonds for construction of a sewage disposal plant and rearrangement of sewer system.

Long Island City, L. I., N. Y.—Bids desired until Feb. 26 by Maurice E. Connolly, Boro. Pres., for furnishing material and constructing sewers and appurtenances in portions of Dekalb, Liberty and St. Anns Ave., Bayreuth, Walnut, Hallett and several other streets. Total security, $52,975.

Niagara Falls, N. Y.—The Works Comrs. and the Sewer Com. of Common Council has decided to construct sewers this summer to cost about $200,000. F. S. Parkhurst, City Engr.

Rochester, N. Y.—Council on Feb. 9 passed ordinance providing for construction of Dewey Ave. outlet sewer to cost $12,000. The Council also adopted the final ordinance providing for construction at a cost of $145,000 a sewer tunnel from West Ave. canal bridge through Main St., Front St. and Central Ave.

Syracuse, N. Y.—Plans reported completed by W. T. Wooley, City Engr., and forwarded to State Bd. of Health, for constructing Huntley tract sewer; cost, $112,000.

Avalon, N. J.—Work will start as soon as funds are available on construction of a sewage disposal plant from plans of Ralph L. Goff, of Ocean City. Gilbert S. Smith, Mayor.

Jersey City, N. J.—Dr. Geo. A. Johnson, Sanitary Expert, has been employed by the Jersey City Comn. to prepare plans for 3 sewerage disposal plants and a connecting trunk line sewer on the Western Slope of Jersey City.

Pitman, N. J.—J. R. Treat, Boro. Clk., writes it is proposed to construct sewer system, but nothing definite has yet been done. Engineer not yet selected.

Coatesville, Pa.—The question of constructing sewage disposal plant being considered.

College Hill, Pa.—Borough Council reported to be considering construction of a sewer system.

Greenville, Pa.—It is proposed to install a sewage disposal plant, intercepting sewers, and additional sanitary sewers this year at a cost of $50,000. Plans and specifications have been prepared by Chester & Fleming, Pittsburgh, Pa.

Hazelton, Pa.—Council reported to have voted $30,000 bonds for sewers and paving.

Parkesburg, Pa.—Citizens reported to have voted $28,000 bonds for construction of a sewage disposal plant.

Bids desired until Mar. 8 by Borough Council for constructing about 4 miles of sanitary sewers and concrete treatment tanks, etc., advertised in Engineering Record. F. H. Shaw, Consulting Engr., Breneman Bldg., Lancaster. Geo. W. Mullen, Secy. Council.

Philadelphia, Pa.—Bids were opened Feb. 4 by Dept. Pub. Wks. for construction of Gunner's Run sewer, and the lowest for the section between 3d and 7th Sts. was submitted by the Keystone State Constr. Co., at $121,000; while Adolph Jafola was lowest on section between 7th and 12th Sts., at $130,000.

Upper Darby, Pa.—Bids desired until Mar 2 by Commissioners of Upper Darby Township, addressed to Wm. Pendlebury, Secy., Cardington, Delaware County, Pa., for constructing terra cotta pipe sewer in Sections Nos. 3, 4 and 5, Keystone Sewer Dist., and Sect. No. 2, Garrettford Sewer Dist., approximately 33 miles, advertised in Engineering Record. A. F. Damon, Jr., Engr., Post Office Bldg., Darby.

Baltimore, Md.—Specifications for sewers to cost about $250,000 reported approved by Bd. of Awards as follows (to be paid for out of the $3,000,000 loan approved by the voters last November): Gwynn's Run to Gwynn's Falls, and to be constructed entirely in a tunnel covering Gwynn's Run, from Frederick Rd. to Baltimore St., and building a roadway similar to the Fallsway; Sect. 3 of east low level interceptor, extending eastwardly from Boston and Hudson Sts.; Inwood Ave. storm water drain outlet, to be a horse-shaped drain, starting with a dimension of 12 ft. x 3 in. and changing to 16 ft. x 6 in.

Bids desired until Mar. 10 by Sewerage Comn. (Chas. England, Chmn.), for building Gqynn's Run Trunk Drain, Sect. No. 1, storm water Contract No. 42, advertised in Engineering Record.

Bids are desired until Feb. 24 by Bd. of Awards, care of City Register, for constructing Sect. 2, Ogiers Run Interceptor, Storm Water Contract No. 36, and Sect. 3 of East Low Level Interceptor Sanitary Contr. No. 148; Storm Water Contr. 36, approximately 11,000 cu. yds. excavation, 2900 cu. yds. concrete, 120,000 lbs. reinforcing steel, 1900 lin. ft. concrete sheet piling, 24,500 lin. ft. spruce or pine piling, 145 cu. yds. brick masonry. Sanitary Contr. 148, approximately 9000 cu. yds. earth excavation and refill, 2600 lin. ft. 36-in. sewer.

Washington, D. C.—Following are the bids opened Feb. 8 for constructing sewers: (a) Pinehurst service sewers, (b) Hillbrook service sewers: Geo. Hyman, Washington, (a) $7,144, (b) $10,418; Warren F. Brenizer Co., Washington, (a) $8,213, (b) $11,695; Wm. F. Cush, Washington, (a) $9,108, (b) $16,886; Jas. W. Bean Contr. Co., Inc., Washington, (a) $9,486; Bruno Pezzimenti, Seneca Falls, N. Y., (a) $15,923, (b) $19,382. Asa E. Phillips, Supt. of Sewers.

South Boston, Va.—See "Water Works."

Southport, N. C.—H. P. O. Hagan, City Engr., writes that proposed sewer system will cost about $20,000, and include 21,500 ft. 8-in. pipe, 8 ft. deep, and 2575 ft. 10-in. pipe, 10 ft. deep. Engineers, J. B. McCrary Co., Atlanta, Ga.

Anderson, S. C.—An election will probably be held in March to vote on appropriating $25,000 to complete the sewer system to consist of about 50,000 ft. 8 to 12-in. pipe sewers.

Columbia, S. C.—See "Water Works."

Walterboro, S. C.—See "Water Works."

Woodruff, S. C.—See "Water Works."

Tallapoosa, Ga.—See "Water Works."

Mobile, Ala.—Bids desired by S. H. Hendrix, City Clk., until Feb. 23 for constructing the Southern drain; cost $10,000. Wright Smith, City Engr.

Okolona, Miss.—Citizens voted $58,000 bonds for new sewer system, from plans of Frank L. Wilcox, St. Louis, Mo.

Cleveland, O.—Bids desired until Feb. 25 by Commissioner Purchasers and Supplies for constructing sewers in Dove Ave., E. 99th, E. 102d and several other streets.

Columbus, O.—See "Paving and Roads."

Granville, O.—Bids desired by Village Clerk until Mar. 9 for constructing sewers and disposal plant, from plans of T. S. Johnson, of Granville.

Dayton, O.—Bids desired until Mar. 16 by Hugh E. Wall, City Accountant, for $40,300 sewer bonds, issued for the purpose of constructing storm sewers in Berm and Wyoming Sts., Burton, Grafton and Norman Aves.

East Palestine, O.—L. E. Chapin is Engineer for the proposed sewer system. C. E. Vaughn, City Engr.

Kent, O.—Bids desired until Mar. 15 by F. Bechtle, Village Clk., for $90,000 sanitary sewer bonds.

Xenia, O.—City Council reported to have approved plans for sewage disposal plant and forward same to State Bd. of Health for final approval.

Grand Rapids, Mich.—Bids desired until Feb. 23 by Jas. Schriver, City Clk., for $40,000 sewer construction and $200,000 street improvement bonds.

Manitowoc, Wis.—W. O. Bahr, submitted lowest bid Feb. 1 for constructing Franklin St. sewer and for surface drainage on 15th and 16th Sts., at a total of $19,101.

★**Superior, Wis.**—Contract reported awarded to Magnus Peterson, of Superior, for building Nelson Ave. sewer at $8,318.

Cedar Rapids, Ia.—An election will probably soon be held to vote $60,000 bonds to be used for extending Vinton Ditch storm water sewer and B Ave. west storm sewer.

Garner, Ia.—Plans being prepared by Iowa Eng. Co., Clinton, for sewers.

Omaha, Neb.—Local press reports state that it is proposed to construct a sewer this year, north from Crown Point Ave. to Miller Park; cost $62,000.

★**Mitchell, S. D.**—Contract awarded for construction of 2 branches of sanitary sewer to the Aiken Constr. Co., Fargo, N. D., at $12,611.

Butte, Mont.—Bids desired until Mar. 17 by W. J. Flood, Comr. Pub. Wks., for constructing 13 miles 8, 10 and 12-in. sanitary sewers.

Lewistown, Mont.—It is reported that City Engineer is preparing plans for installation of a lateral sewer system to cover about 12 blocks, to be ready for bids about Apr. 1.

Caruthersville, Mo. — See "Water Works."

Caruthersville, Mo.—Citizens voted Jan. 26 to issue $32,000 bonds for extending sewer system, from plans of Frank L. Wilcox, of St. Louis. Bids for bonds to be received Feb. 22. J. M. McGinnis, City Clk.

Ashdown, Ark.—Bids desired until Feb. 25 by Commissioners of Sewer Dist. No. 1 for $39,000 sewer bonds. A. D. Dulaney, Atty.

Rector, Ark.—See "Water Works."

Dallas, Tex.—Local press reports state that bids will soon be called for by R. R. Nelm, City Comr., for constructing the main sewer system.

Ft. Worth, Tex.—The report of a sanitary survey has been made by Hering & Gregory, Consulting Engrs., New York, to the Bd. City Comrs. The construction of sewage disposal works and of a refuse incinerator is recommended.

Houston Heights, Tex.—Howe & Wise, City Engrs., reported to have completed plans for first unit of the proposed storm water drainage system. The proposed section will extend from White Oak Bayou to a point past 7th Ave., between Boulc. and Yale St., a distance of about 1600 ft. It will have a diameter of 7 ft. of reinforced concrete, and will cost about $35,000.

Houston Heights, Tex.—Howe & Wise, City Engrs., reported to have been authorized to prepare plans for a 7-ft. storm water sewer.

Anacortes, Wash.—It is reported that trunk sewers will be constructed to connect with the M St. trunk sewer and lateral sewers in alleys between 10th and 11th Sts.; cost about $15,000.

Enterprise, Ore.—Council reported to be considering the issue of $20,000 for sewer system.

Enterprise, Ore.—Council has passed ordinance providing for issue of $20,000 sewer bonds, and City Recorder will receive bids for bonds Mar. 15, and construction Mar. 22. Plans call for construction of 2½ miles trunk drains, a septic tank and short laterals.

Sacramento, Cal.—See "Water Works."

San Diego, Cal.—Allen H. Wright, City Clk., writes following are bids opened Feb. 8 for completing Ocean Beach sewer: C. H. Julian, San Diego, $67,220; G. R. Daley, San Diego, $68,200; Johnson-Shea Co., Riverside, $70,936; J. W. Calback, San Diego, $78,480.

★**South Pasadena, Cal.**—John McMillan, City Engr., writes that the following are the unit prices of Watson & Spicer, Wright & Callender Bldg., Los Angeles, successful bid for constructing a portion of the sewer system (bids opened Jan. 27): 15,729 ft. furnish lay and back fill, vitr. pipe, 8-in., 45 cts.; 2,376 ft. 10-in., $1.35; 1,300 ft. 12-in., 60 cts.; 2,308 ft. 14-in., 65 cts.; 875 ft. 16-in., 75 cts.; 1,069 ft. 18-in., 85 cts.; 375 ft. 20-in., $1; 5,372 ft. 27-in. brick sewer, $2.50; 60 ft. 8-in. c.-i. pipe, $1.50; 120 ft. 10-in., $1.75; 367 vert. ft. chimney pipe, 50 cts.; 61 manholes, ea., $40; 12 flush tanks, ea., $65; total, $31,639. Next 3 lowest bids: M. R. Fulmis, Los Angeles, $32,703; R. N. Nikcevich, South Pasadena, $32,907; J. C. Duncan, 1237 Vermont Ave., Los Angeles, $34,744.

Salt Lake City, Utah.—Sylvester Q. Cannon, City Engr., estimates cost of constructing sewer as follows: main trunk sewer, 18,000 ft., $325,000; discharge outlet, $50,000; city's portion of sewer extension 326, $25,000.

London, Ont.—The Municipal Council is now considering construction of sewage disposal plant, from plans of Chipman & Power, of Toronto.

Ottawa, Ont.—Additions to Mechanicsville sewer system contemplated at a cost of $22,000. F. C. Askwith, City Engr.

Calgary, Alta.—City Commissioners reported considering construction of a sewer from Elboya across Stanley Park; cost about $17,000.

Assiniboia, Sask.—Press reports state Ward 4 will probably construct a sewer system, to cost $133,115.

BRIDGES.

Items Arranged Geographically

Booth Bay Harbor, Me.—Construction of a steel bridge between Southport and Booth Bay Harbor is contemplated; cost about $20,000. State Highway Comn. at Augusta said to be interested.

Asbury Park, N. J.—Construction of a draw bridge over mouth of Matawan Creek is to be constructed jointly by Monmouth County Bd. Freeholders at Freehold and Jersey Central Traction Co.; cost about $40,000.

Mount Holly, N. J.—Bids desired until Mar. 3 by Bd. Chosen Freeholders, Atlantic and Burlington Counties, at court house, Mount Holly, for repairs to bridge at Chestnut Neck, N. J., advertised in Engineering Record. Jas. Logan, Co. Engr., Mount Holly.

Chalfont, Pa.—Bucks County Comrs. at Doylestown voted to construct concrete bridge over North Branch Creek at Chalfont.

Haverford, Pa.—See "Paving and Roadmaking."

Philadelphia, Pa.—Press reports state that bids are desired by the Highway Bureau Mar. 1 for a bridge over new Belt Line tracks at south end of Southern Boule.; estimated cost $300,000. M. L. Cooke, Dir. Dept. Pub. Wks.

★*Items marked thus give the names of parties awarded contracts.*

★**Richmond, Va.**—Contract for constructing concrete bridge on Meadow Bridge Rd. awarded by Br. Supervs. Henrico County to Shurley Carter at $23,040.

Dallas, Ga.—Comrs. of Paulding County, at Dallas, will construct a short bridge consisting of a 64-ft. span with 80-ft. approach.

★**Fitzgerald, Ga.**—Contract for constructing steel bridge over Willacoochee Creek on Fitzgerald-Ocilla Rd. has been awarded by County Comrs. Feb. 4 to W. A. Neal & Sons, Atlanta.

Ft. Lauderdale, Fla.—Las Olas Bridge Co. reported incorporated, capital $25,000, to construct bridge over New River Sound at N. 2d St.

Palatka, Fla.—An election will soon be called by County Comrs. (J. H. Millican, Chmn.) to vote on rebuilding bridge of concrete over St. Johns River, about 4000 ft. long.

Laurel, Miss.—Contract for constructing steel bridge over Horse Creek has been awarded to Vincennes Bridge Co., Vincennes, Ind., by Bd. Supervs.

Pineville, Ky.—See "Paving and Roadmaking."

Belpre, O.—Parkersburg Ohio Bridge Co., Belpre, reported incorporated to construct and operate bridge over Ohio River between Belpre and Parkersburg. Capital, $10,000.

Canton, O.—Bids reported desired until Mar. 5 by County Commissioners for furnishing solid round c.-i. culvert pipe, composed of Northern grade iron and made in 6 and 12-ft. lengths, 8 to 72-in., inclusive diameter; also corrugated culvert pipe, 10 to 16 in.

Cleveland, O.—We are informed that the first advertisement for east section of Clark Ave. viaduct, which stated that bids would be received on Feb. 23, has been reconsidered and the entire steel superstructure advertised. New bids will be opened March 2 by A. R. Callow, Comr. Purchase and Supplies, F. D. Richards, Bridge Engr.

McArthur, O.—Bids desired until Mar. 2 by County Commissioners for constructing Lebanon Bridge, steel structure, length of span 125 ft. between pier centers, 14-ft. floorway, creosote block floor; also bids for concrete structure, 13-ft. span, 14-ft. roadway. C. W. Brown, Co. Aud.

Detroit, Mich.—Council Com. on Parks and Boulevards and Bridges are reported to be considering issuing $1,200,000 bonds for constructing bridge at Belle Isle.

★**Greenville, Ill.**—Contract has been awarded by State Highway Dept., Springfield, to Connor & Van Dusen, of Greenville, for constructing Mill Hill bridge in Central Township, Bond County, at $5,600.

Mt. Morris, Ill.—Bids desired until Feb. 25 at Town Hall, Mt. Morris, for constructing 2 reinforced concrete bridges in Mt. Morris Township, known as Pieper and Zumdahl bridges, spans each 35 ft., roadways 20 and 16 ft. Engineer's estimate for Pieper Bridge $2,000 and Zumdahl Bridge $1,490. Alex. Anderson Co., Supt. Highways, Polo.

Shawano, Wis.—Bids reported desired until Feb. 23 by O. C. Rollman, Co. Highway Comr., Shawano, for constructing a 60 ft. skewed plate girder bridge over Mill Creek, Town of Red Springs. M. W. Torkelson, State Bridge Engr., Madison.

★**Audubon, Ia.**—Contract awarded Feb. 5 for about 4500 ft. corrugated culverts, to Midland Metal Mfg. Co., at $4,716. C. D. Fordbeck, Co. Engr.

Winona, Minn.—Bids desired until Mar. 1 by Geo. W. Hofman, City Recorder, for constructing an approach from the Wisconsin side of the High Wagon Bridge across the Mississippi River. The proposed approach will have a roadway 18 ft. wide paved with brick, and a concrete sidewalk 5 ft., a total length of approximately 1700 ft. Alternate bids will be received for both steel and reinforced concrete structures. Probable cost $100,000. L. P. Wolff, Engr., Germania Life Bldg., St. Paul.

Bids desired until Mar. 1 by Bd. Park Comrs. (F. J. Bell, Secy.) for constructing reinforced concrete park bridge on parkway across Lake Winona, to have clear span of 30 ft. and total length of 70 ft., 24-ft. roadway paved with brick and 2 6-ft. concrete walks. L. P. Wolff, Engr., Germania Life Bldg., St. Paul.

★**Salina, Kan.**—Contract awarded Feb. 2 by County Comrs. for constructing a reinforced concrete bridge with sidewalks across Smoky Hill River on Iron Ave. to Concrete Constr. Co., Sharp Bldg., Kansas City, Mo., at $28,500. Other bids—Stamey-Mackey Constr. Co., Hutchinson, Kan., $29,059; Heaney Constr. Co., Enid, Okla., $29,900; Missouri Valley Bridge & Iron Co., Leavenworth, $29,523. Engineers, Wilmarth & Zerbe, Salina.

★**Central City, Neb.**—Contract awarded Feb. 9 for bridge construction during 1915 to Contractors Constr. Co., of Omaha.

Kearney, Neb.—Comrs. Buffalo and Kearney Counties are considering constructing bridge over Platte River, about one mile south of Kearney.

North Platte, Neb.—Bids desired until Mar. 17 at County Clerk's office, North Platte, for constructing a bridge across North Platte River, about 2 miles east of the Town of New Platte. Bids will be received on following alternate designs: Reinforced concrete bridge of the balanced arch type, composd of two 60-ft., two 65-ft., two 70-ft., two 75-ft. and two 80-ft. archs, with 16 or 20 ft. roadway, 50 ft. skew with concrete piers and abutments resting on wood piles. A high truss steel bridge composed of five 135-ft. skew spans, 16-ft. roadway, concrete floor with concrete piers, resting on steel tubes and concrete abutments resting on steel and wooden piling. Bids will be received on a yardage basis for making fills and approaches, there being approximately 25,000 cu. yds. of fill and 3000 cu. yds. surfacing. C. W. Yost, Co. Clk.

Grand Forks, N. D.—Bids desired until Feb. 23 by W. H. Alexander, City Aud., for rebuilding portion of bridge over Red River of the North on DeMers Ave. J. J. Smith, City Engr.

Tyndall, S. D.—Bids reported desired by J. Maus, Co. Aud., until Mar. 2 for constructing either concrete, steel or pile bridges, also corrugated iron and metal culverts for year 1915.

★**Orange, Tex.**—Contract for constructing steel bridge over Intercoastal canal near Orange has been awarded to Perry & Bonner, Lake Charles.

Rockport, Tex.—Construction of bridge across Puerto Bay is contemplated by county; cost about $25,000.

★**Chehalis, Wash.**—Contract awarded Feb. 3 to Coats Bridge Co., Portland, Ore., for 2 steel bridges, 110 and 130 ft. spans, riveted trusses, steel tubes filled with concrete under the 130-ft. span and concrete abutments under the 110-ft. span. J. D. Neville, Co. Engr.

Davenport, Wash.—About $162,000 is to be spent in Lincoln County for road and bridge improvements.

Ephrata, Wash.—Plans will be prepared by E. H. Stradling, County Engineer, for constructing four 20-ft. concrete spans at Ephrata; cost about $25,000.

La Conner, Wash.—Bids reported desired until Mar. 2 by County Commissioners, Mt. Vernon, for constructing a 230-ft. draw span, of steel construction, near La Conner. Probable cost $25,000. Bowerman & McCloy, Engrs., Mutual Life Bldg., Seattle.

Lynden, Wash.—Plans being prepared by C. M. Adams, County Engineer, at Bellingham, for constructing steel and concrete bridge over Nooksack River at Lynden.

Spokane, Wash.—See "Paving and Roadmaking."

Long Beach, Cal.—See "Paving and Roads."

San Bernardino, Cal.—A bill is now before California State Legislature providing for an appropriation of $25,000 toward constructing bridge over Colorado River; a similar amount has already been appropriated by the U. S. Dept. of Interior, Bureau of Indian Affairs, and likewise by the State Legislature, State of Arizona. The County of San Bernardino is now endeavoring to reach an agreement with the county of Los Angeles, whereby the two counties shall agree to divide between them any further cost in excess of $75,000, now appropriated. J. A. Sourwine, Co. Surveyor, San Bernardino, has had charge of preliminary investigation and in a report to the State Engineer recommends a steel arch type of construction; the design calls for one main span 590 ft. long, with two short approach spans, each 120 ft. in length.

San Francisco, Cal.—Plans and specifications prepared by State Harbor Engineer for concrete foot bridge at north side of ferry building have been approved; cost about $50,000.

Watsonville, Cal.—About $20,000 bonds have been sold for constructing concrete bridge near here.

★**Toronto, Ont.**—Contract for constructing Rosedale section of Bloor St. Viaduct has been awarded by Bd. Control Feb. 4 to Dominion Bridge Co. at $298,555 for steel construction, without lower deck. To be steel arch span, 86 ft. wide, 580 ft. long.

PAVING AND ROADS.

Items Arranged Geographically

Albany, N. Y.—The State Assembly on Feb. 10 passed bill making available $10,000,000 for highway improvements.

Buffalo, N. Y.—Bids desired until Feb. 24 by Francis G. Ward, Comr. Pub. Wks., for repaving Morgan, Farmer, Germain and Bridgeman Sts.

Little Falls, N. Y.—M. A. Leahy, City Clk., writes it is proposed to pave Garden and Monroe Sts. with bitulithic or asphalt macadam on concrete base, concrete and sandstone curb.

New Brighton, S. I., N. Y.—Bids desired until Feb. 23 by Chas. J. McCormack, Boro. Pres., for regulating, grading, paving with granite block, and constructing cement curb with steel nosing on Cotton St., requiring 1650 sq. yds. pavement, 5000 ft. sidewalk, etc. Security $4,000.

Boston, Mass.—Following are 4 lowest bids opened Feb. 9 by Commonwealth of Massachusetts (Metropolitan Park Comn.), 14 Beacon St., Boston, for surfacing and grading, Mystic Valley Parkway: (a) Coleman Bros., Chelsea, $43,730, (b) Richmond F. Hudson, Melrose, $46,817; (c) Jas. H. Fannon, Somerville, $48,743; (d) Rowe Contr. Co., $51,077.

	(a)	(b)	(c)	(d)
4,000 cu. yds. earth grading	$0.40	$0.60	$0.40	$0.50
45,000 cu. yds. filling	.56	.62	.69	.675
850 lin. ft. 10-in. vitr. pipe drain	.30	.40	.40	.50
800 lin. ft. 12-in. vitr. pipe drain	.40	.45	.50	.60
400 lin. ft. 24-in. vitr. pipe drain	1.25	1.25	1.50	2.00
26 catchbasins and manholes	.50	.30	.25	.30
170 lin. ft. straight edgestone	1.00	1.25	1.10	1.10
140 lin. ft. curved edgestone	1.50	1.75	1.40	1.50
3,000 cu. yds. loam to be furnished by contractor	1.00	1.00	1.25	1.20
11,000 sq. yds. roadway surfacing	.49	.55	.60	.60
3,200 sq. yds. walk surfacing	.30	.40	.35	.35
750 cu. yds. stone masonry	6.50	5.00	3.00	6.00

New York, N. Y.—Bids desired until Feb. 24 by R. A. C. Smith, Comr. of Docks, for Contr. 1448—Furnishing material and repairing asphalt pavement on marginal street and piers, North, East and Harlem Rivers, Boro. Manhattan, together with all work incidental thereto. Security $8,000.

Bids desired until Feb. 26 by Marcus M. Marks, Pres. Boro. Manhattan, for regulating and paving with granite block on a concrete foundation W. 156th St., requiring 1630 sq. yd. pavement, 1000 sq. ft. new flagging, etc.; laying sidewalks on 2d Ave., requiring 10,900 sq. ft. concrete sidewalk, etc.; furnishing and delivering 6000 cu. yd. paving gravel and 7000 cu. yd. sand, 2500 cu. yd. concrete gravel and 5000 cu. yd. asphaltic wearing surface sand.

Watertown, N. Y.—Bids desired until Mar. 5 by Bd. Pub. Wks. for constructing creosoted wood block pavement on a concrete base and vitr. block pavement on a concrete base in northerly half of Public Square and in Mill St. E. W. Sayles, City Engr.

Bayonne, N. J.—The City Council has appropriated $75,000 bonds for street improvements.

East Orange, N. J.—Bids desired until Feb. 22 by Lincoln E. Rowley, City Clk., for furnishing and applying 255,000 gals. or any part thereof, of non-asphaltic road oil to the streets of this city.

Jersey City, N. J.—Bids desired until Feb. 24 by County Boulevard Comrs. (John C. Sweeney, Clk.) for furnishing for the fiscal year ending Nov. 30, 1915, 50,000 gal. asphaltic road oil, 100,000 gal. asphaltic road binder, 1300 yd. ¾-in., 200 yd. 1½-in. crushed stone, 4500 yd. crushed stone, size screenings, etc.

Jersey City, N. J.—Bids desired until Feb. 25 by City Commissioners for paving with brick High St. from Summit to Baldwin Aves.

Mount Holly, N. J.—Bids desired until Mar. 1 by Bd. Chosen Freeholders, Mount Holly, for resurfacing several stone roads in the county, advertised in Engineering Record. Jas. Logan, Co. Engr.; Harry Hawkins, Jr., Clk. of Bd.

New Brunswick, N. J.—Bids desired by City Council until Mar. 22 for grading and curbing several streets. Fred C. Schneider, City Engr.

★**Greenville, Pa.**—J. M. Hittle, Boro. Secy., writes contract for paving College and Columbia Aves. (bids opened Feb. 8) awarded Feb. 15 to Wm. McIntyre & Sons, of Sharon, Pa. Work includes the following: Grading, paving and curbing College Ave., 2500 ft., width 26 ft.; also Columbia Ave., 1293 ft., width 26 ft., cement curb and gutter, pitch fill, 5-in. concrete base of slag and sand; brick to be medal, D-block made by Deckman-Duty Co.

Haverford, Pa.—Comrs. Haverford Township have appropriated $19,000 for road and bridge improvements.

Hazleton, Pa.—See "Sewerage and Sewage Disposal."

Pittsburgh, Pa.—Bids desired until Mar. 2 by Robt. Swan, Dir. Dept. Pub. Wks., at office of City Comptroller, for grading, paving and curbing W. Liberty Ave., and constructing a storm sewer for drainage thereof, advertised in Engineering Record.

Reamstown, Pa.—Bids desired until Mar. 6 by Bd. Road Superv. of East Cocalico Township (Geo. J. Root, Secy.) for a mounted rock crusher, jaw type, with 16 or 20-ft. elevator with connections for operating screen attached to bin. Crusher to have capacity of approximately 10 to 15 tons per hour. Bids desired for crusher and bin combined or separately.

★**Baltimore, Md.**—We are informed that following are successful bidders on contract for paving recently opened by City Paving Comn. (R. Keith Compton, Chmn. and Consulting Engr.): Contract 102, M. O'Herron & Sons, Inc., 843 N. Howard St., $52,709; Contracts 103, 104 and 105, to Baltimore Asphalt Block & Tile Co., Baltimore, $149,939, $115,930 and $89,988, respectively; Contracts 107 and 109, American Paving & Contr. Co., Baltimore, $32,841 and $53,299, respectively.

Following are lowest bids opened Feb. 3 by City Paving Com. for paving: Contracts 106, about 4700 sq. yds. vitr. block, and Contract 108, about 4200 sq. yds. new granite block and 14,000 sq. yds. granite block repaving, Slack & Slack; Contract 107, about 7700 sq. yds. sheet asphalt, 6470 sq. yds. granite block and 700 sq. yds. vitr. block, and Contract 109, about 14,500 sq. yds. sheet asphalt, 5850 sq. yds. vitr. block and 3320 sq. yds. granite block, American Paving & Contr. Co.; Contract 110, P. Flanagan & Son, and Contract 111, Geo. Long Contr. Co.

Norfolk, Va.—State Legislature passed bill authorizing Norfolk County to issue $200,000 bonds for road improvements.

Petersburg, Va.—Bids desired until Feb. 23 by Finance Com. for $100,000 Colored School bonds and $80,000 street roadway bonds. G. B. Gill, City Aud.

★**Richmond, Va.**—Contract awarded Feb. 1 by State Highway Comr. G. P. Coleman, Richmond, for constructing 4½ miles gravel road between city limits and Chickahominy Bridge, in Henrico County, to M. B. Morris, of Richmond.

South Boston, Va.—See "Water Works."

Parkersburg, W. Va.—Citizens voted to issue $200,000 bonds for pavements.

Greensboro, N. C.—Bids desired until Mar. 3 by T. J. Murphy, Mayor, for $100,000 bonds, issued for paving streets and other improvements.

Lumberton, N. C.—Bids desired until Feb. 25 by G. T. Page, Treasurer, for $35,000 street improvement bonds, advertised in Engineering Record.

Mocksville, N. C.—About $35,000 Davie Road bonds have been sold by Comrs.

Sanford, N. C.—Bids desired until Mar. 2 by J. M. Harrington, Secy. Highway Comn., for $100,000 bonds issued for the purpose of improving highways in this county.

Greenville, S. C.—County Comrs. contemplate spending about $500,000 for road improvements according to reports.

Dublin, Ga.—See "Street Cleaning and Garbage Disposal."

Clearwater, Fla.—Jos. N. Drew, City Engr., writes that date of opening of bids for paving Ft. Harrison and Drew Aves., about 20,000 sq. yd. brick on sand foundation, has been postponed from Feb. 17 to about Mar. 15. Cost about $41,000.

Tavares, Fla.—H. H. Duncan, Clk. Co. Comrs., writes contract will probably be let in March for 200 miles of hard surfaced roads, sand asphalt, rock asphalt, clay and shell.

Clarksdale, Miss.—Bids desired by County Supervisors until Mar. 3 for 3½ miles of gravel road from Clarksdale to Big Creek. J. R. Shidler, Co. Engr.

Bids desired by City Clerk until Mar. 3 for 3 miles of gravel streets.

Kentucky.—To date 37 out of 120 counties have applied for state aid in building roads. No application will be received after Mar. 15. The state of Kentucky will give about $750,000 to several counties this year. R. C. Terry, State Highway Comr., Frankfort.

Pineville, Ky.—W. C. Bingham, Co. Clk., writes citizens voted Feb. 13 to issue $250,000 bonds for macadam roads; 2 bridges also contemplated. Engineers, Bailey & Culton, of Pineville.

Bethesda, O.—H. L. Maddock, Trust Bldg., Newark, O., has been engaged to prepare plans and specifications and superintend construction for about 2 miles of street paving in the village of Bethesda. Contract will be let as soon as necessary legislation is enacted.

Cleveland, O.—Bids desired until Feb. 24 by Commissioner Purchases and Supplies for paving portions of Elmarge Rd. S. E., Dickens Ave. S. E., E. 121st, E. 128th, E. 131st and a number of other streets.

Bids desired until Mar. 10 by County Comrs. (E. G. Krause, Clk.) for improving Washington-State St. road. W. A. Stinchcomb, Co. Surveyor.

Columbus, O.—Bids desired until Mar. 2 by Director Pub. Service (Paul B. Kemper, Clk.) for sundry materials for street and sewer repair, to include 1,350 tons asphalt (lake) sand, 120 tons refined asphalt, 200 tons limestone dust, 7000 gal. residum, 200,000 old-style 3¼-in. x 4-in x 9-in. street paving block, 50,000 new-style, standard size street paving block, 250 tons 3½-in. No. 1 granite cubes, 350 tons paving pitch, 8000 tons macadam, 5000 tons dust or screenings, 45,000 gal. asphalt road oil, 30,000 gal. bituminous road oil, 60,000 gal. bituminous material for surface treatment, 100,000 sewer brick, 4200 lin. ft. 4 to 24-in. vitr. sewer pipe, 400 bbl. Portland cement, manhole and catch basin castings, etc.

Dayton, O.—County Comrs. have voted to construct 10 miles county roads.

★Items marked thus give the names of parties awarded contracts.

Mansfield, O.—Bids desired until Mar. 15 by County Auditor for grading and macadamizing a portion of new State road, Franklin and Jackson townships, about 4.38 miles in length. C. L. Bushey, Co. Engr.

Mt. Gilead, O.—Bids desired until Mar. 15 by County Comrs. for furnishing material and constructing 2 macadamized roads, one Benton Rd., South Bloomfield Township, about 3 6-10 miles and Blackbird Rd., Gilead and Harmony townships, about 7 miles. C. O. Higgins, Co. Aud.

★**Oakwood, O.**—Geo. E. Kelley City Clk., writes contract was awarded Feb. 1 for furnishing material and grading and paving Farhill, Harman and Oakwood Aves. to Biglen Bros., of Middletown.

Ottawa, O.—Bids reported desired until Feb. 24 by E. McGaharan, Co. Aud., for macadamizing 2 miles road.

Painesville, O.—Bids desired until Feb. 24 by Martin A. Tuttle, Dir. Pub. Service, for furnishing material and improving Liberty St. by grading, draining, curbing and paving with brick on a concrete foundation, with asphalt or other material, requiring approximately 10,832 cu. yds. excavation, 17,428 sq. yds. pavement and 10,822 lin. ft. stone curb and headers.

Sandusky, O.—Bids desired until Mar. 1 by Director Pub. Service (E. C. Wagner, Clk.) for furnishing necessary crushed stone to macadamize and repair streets during the year 1915.

Upper Sandusky, O.—Bids desired until Feb 26 by Jay Marguerat, Co. Aud., for grading and stoning Crane Township Road Improvement No. 50, 3¾ miles in length.

Zanesville, O.—Bids desired Feb. 23 for paving with brick Blue and Maple Aves. and Adamsville Rd. J. S. Dennis, City Engr.

Angola, Ind.—Bids desired until Mar. 10 by Roy Hirst, City Clk., for curbing and paving E Maumee St., about 8400 sq. yd., advertised in Engineering Record. Clark F. Powers, City Engr.

Indiana.—Bids desired by County Commissioners for constructing roads as follows:

Until Mar. 1:

Greencastle, macadam roads in Cloverdale, Greencastle and Washington townships. C. L. Airhart, Co. Aud.

Mt. Vernon, gravel roads in Marrs, Harmony and Robb townships. Jos. R. Haines, Co. Aud.

Portland, 2 gravel and 2 crushed stone roads. John Bonifas, Co. Aud.

Until Mar. 2:

Sullivan, gravel roads in Turman, Haddon and Gill townships. W. S. Blacknell, Co. Aud.

Bloomfield, macadam roads in Jefferson, Washington, Stockton and Richland townships, 6 in all. Geo. E. Kidd, Co. Aud.

Kokomo, 5 gravel and stone roads. E. B. Swift, Co. Aud.

Decatur, 6 macadam roads. T. H. Baltzell, Co. Aud.

Princeton, stone roads in Jackson and Columbia townships. W. T. Roberts, Co. Aud.

Until Mar. 8:

Peru, gravel roads in Jefferson, Butler and Washington townships. Frank K. McElheny, Co. Aud.

★**Michigan City, Ind.**—Contract for paving 8th, Fir and Felton Sts. has been awarded by Bd. Pub. Wks. to W. B. Hutchinson at $1.11 per sq. yd.

Detroit, Mich.—Paving of Kirby and Melrose Aves. and 12th St. is contemplated by city; cost $32,000.

Flint, Mich.—D. E. Newcombe, City Clk., writes bids desired until 3 p. m. Feb. 23 for asphalt plant, all asphalt paving material and paving brick.

Grand Rapids, Mich.—See "Sewerage and Sewage Disposal."

Quincy, Mich.—About $24,000 is to be spent for pavements by city.

★**Royal Oak, Mich.**—We are informed that under date of Feb. 15 contract has been finally awarded for constructing 4¼ miles concrete road on Woodward Ave. to the Andrews Asphalt Paving Co., of Hamilton, on bids opened Jan. 23.

East Moline, Ill.—Bids desired until Feb. 24 by Bd. Local Improv. for constructing about 1900 sq. yd. of brick pavement, advertised in Engineering Record.

Freeport, Ill.—About 3 miles of streets are to be improved with brick pavements by city; cost about $35,000.

Alton, Ill.—The Board of Local Improv. has ready for public hearing plans and specifications for 5½ miles of street paving with combination concrete curb and gutter in Dist. 2, in which the Western Military Academy and Shurtleff College are located. Pavement will have a 4-in. concrete base, and Alton brick will probably be used. J. E. Schwaab, City Engr.

Illinois.—Bids desired until Feb. 23 by State Highway Comn., Springfield (Wm. W. Marr, Ch., Engr.), for constructing State roads as follows (all cement to be furnished by the State): Cook County, Sect. G, Route 3, concrete type, approximate length 12,957 ft., estimated cost $34,471; Madison County, Sect. A, Routes 1 and 11, brick type, approximate length 9000 ft., estimated cost $33,367; Winnebago County, Sect. B, Route 11, concrete type, approximate length 6200 ft., $18,583; Winnebago County, Sect. A, Route 10, concrete type, approximate length 5280 ft., $15,563; Whiteside County, Sect. B, Route 1, concrete type, approximate length 4400 ft., estimated cost $8,816; Whiteside County, Sect. C, Route 1, concrete type, approximate length 2000 ft., estimated cost $4,152; Alexander County, Sect. A, Route 1, gravel type, approximate length 5100 ft., estimated cost $5,992. (No material to be furnished by State on the Alexander County contract).

Sheboygan, Wis.—Bids desired until Feb. 26 by Bd. Pub. Wks. (C. U. Boley, Chmn.) for furnishing material, grading and paving with concrete N. 4th st. from Pennsylvania to Grant Aves., requiring approximately 14,645 sq. yds. paving and 6605 lin. ft. combined curb and gutter.

Wisconsin.—Plans being prepared and are practically ready for the following improvements under the State Aid Law of the State of Wisconsin (A. R. Hirst, State Highway Engr., Madison):

Dane County, Village of Mt. Horeb, paving Main, First, 2d and 4th Sts. with concrete, curb to curb, total of 19,300 sq. yd.; also 7452 lin. ft. curb and gutter; cost, $26,000. Bids will be called for about the last week in February by the County Highway Comr. and village named. T. G. Lingard, Village Pres.

Wood County, Village of Biron, paving River St. with 9 ft. concrete, total of 7000 sq. yd. Bids will be called for by County Highway Comr. This last mentioned piece of concrete to be bordered with 3½-ft. stone shoulders; cost, $9,000.

Mason City, Ia.—City Clerk writes bids desired until 10 a. m. Feb. 24 for about 59 blocks paving with asphalt, concrete and brick.

St. Paul, Minn.—City Council contemplates paving S. Wabasha and E. 6th Sts. and Lexington Ave.; cost, $238,000.

Holton, Kan.—Bids desired until Feb. 26 by C. E. Mitchell, City Clk., for furnishing material and paving portions of New York and Pennsylvania Aves., 4th and 5th Sts. Bids desired for vitr. paving block, vertical fiber paving block and asphaltic concrete pavement. Worley & Black, Engrs., Reliance Bldg., Kansas City, Mo.

Great Falls, Mont.—Bids reported desired until Feb. 23 by W. H. Harrison, City Clk., for maintaining boulevards in this city during 1915.

★Contract awarded Jan. 19 for constructing sidewalks during 1915 to Fred. Saner, of Butte, at $5,199. W. H. Harrison, City Clk.

Townsend, Mont.—Bids reported desired until Mar. 1 by County Commissioners for constructing several highways and irrigation ditches.

Cameron, Tex.—The City Council is reported to have decided to spend about $15,000 for street improvements.

Corpus Christi, Tex.—Citizens voted $100,000 bonds for street improvements.

Corsicana, Tex.—Bids reported desired until Feb. 23 by J. A. Harper, City Secy., for paving portions of W. 2d, E. 5th and W. 7th Aves. Separate bids desired for bitulithic, brick, asphalt macadam, asphalt concrete and rock asphalt pavement, concrete gutters, concrete curbs and combination gutters.

Denton, Tex.—See "Water Works."

★**Greenville, Tex.**—Contract for constructing 40 miles concrete roads radiating out of Greenville has been awarded by Hunt County to Roach-Mannigan Paving Co. and B. L. Waggoman & Co., both of Ft. Worth, at $400,000.

Longview, Tex.—Election to vote on issue of $300,000 bonds for road improvements is contemplated.

★**Marshall, Tex.**—Contract for paving E. Austin St. has been awarded to Bert Han Constr. Co., Dallas, at $17,356.

★**McKinney, Tex.**—Contract for paving in Improv. Dist. No. 2 (bids opened Feb. 3) has been awarded to Kaw Paving Co., Topeka, Kan., at following bid: 4698.8 cu. yds. class A excav., 35 cts.; 375.5 cu. yds. class A excav. (in car tracks), 50 cts.; 14,822 lin. ft. combined curb and gutter, 46 cts.; 77 ft. curb and gutter, 20 cts.; 748 ft. curb, 33 cts.; 528 lin. ft. curb reset, 15 cts.; 1826 lin. ft. gutter, 30 cts.; 856 lin. ft. armor radial curb and gutter, 66 cts.; 2076 sq. ft. cement sidewalks, 11 cts.; 6 sq. ft. curb and gutter inlets, $25; 310 lin. ft. storm sewer, 15 in., 90 cts.; 22,100 sq. yds. asphaltic concrete pavement on 5-in. concrete foundation (Texaco), $1.56; total, $55,720. Chas. Schultz, City Engr.

Pecos, Tex.—W. E. Wood, County Clk., writes bids desired until Mar. 8 for about 65 miles grading and about 30 miles gravel surface road. Probable cost reported to be $80,000.

Bellingham, Wash. — Board County Commissioners will open bids about Mar. 8 for paving with 2-course concrete Northeast Diagnola Rd.; probable cost, $20,000.

★**Chehalis, Wash.** — Contract awarded Feb. 1 by County Comrs. for constructing 1 mile concrete highway and about 1 mile road to the Two Miracle Cor., Kalispell, Mont., at $13,600. J. D. Neville, Co. Engr., Chehalis.

Davenport, Wash.—Bids reported desired until Mar. 12 for constructing 12 miles of highway. G. G. Harvey, Co. Engr.

Ephrata, Wash.—Surveys have been completed by E. H. Stradling, County Engineer, for constructing 8 miles Connell Cut Off; cost $20,000. Plans to be prepared for constructing 2 miles Soap Lake Sidling Rd.; cost $10,000.

Port Townsend, Wash.—Plans have been approved by County Comrs. for grading and graveling 3½ miler Permanent Highway No. 2 A; cost about $15,000.

Plans being prepared by G. D. Edwards, County Engineer, for grading and gravelling 6 miles road on west side Discovery Bay; cost about $20,000.

Prosser, Wash.—Following 3 lowest bids opened Feb. 2 by L. L. Lynn, County Auditor, for constructing Permanent Highway No. 4, Kennewick-Finley Rd.: Saulsberry & Nelson, Prosser, $17,193; Wilson & Co., Jacox Bldg., Walla Walla, Wash., $17,681, and W. A. Morain, Kennewick, Wash., $18,419.

Ralston, Wash.—Plans being prepared by O. J. De Spain, County Engineer Ritzville, for constructing concrete road between Washtuckle and Ralston; cost about $40,000.

Seattle, Wash.—Plans and specifications have been filed by A. H. Dimock, City Engineer, for paving with asphalt Mill St.; cost $53,000.

Lowest bid opened by Bd. Pub. Wks. Feb. 5 for paving with asphalt 31st Ave. South, has been submitted by L. R. Ellis, Central Bldg., Seattle, at $10,174.

★Contract awarded Feb. 8 for constructing Mercer Island Rd. to Ferch & Gass, Henry Bldg., Seattle, at $16,891. F. W. Allen, Deputy Co. Engr.

Shelton, Wash.—A. L. Ward, County Engineer, has been directed to prepare estimates for constructing concrete road from Shelton north for 1 mile and for road south from Shelton; cost about $18,000.

Spokane, Wash.—About $206,000 is to be spent for constructing 11¼ miles asphalt macadam pavement and $22,000 for constructing concrete bridge.

Tacoma, Wash.—City Council voted to pave with asphalt Pacific Ave.; cost $45,000.

Bay City, Ore.—Lowest bid opened Feb. 4 for paving streets in business district submitted by P. A. Sandberg, 407 Stanton Ave., Portland, at $33,363. J. C. McClure, City Recorder.

Salem, Ore.—Bids will be received during first week in March for constructing Columbia River Highway in Hood River County; cost $50,000. H. M. Bowlby, State Highway Engineer.

State Legislature has approved plan to raise funds, $450,000, this year to construct state roads.

★**California.** — Contract awarded by State Highway Comn., Forum Bldg., Sacramento, for constructing state highway in Butte County (between Nelson and Chico), Div. 3, Route 3, Sect. C to Whitlock & Gorrill, New Call Bldg., San Francisco, Cal., at $70,042 (bids opened Feb. 1), unit prices in Engineering Record of Feb. 13.

Long Beach, Cal.—Bids reported desired until Feb. 24 by Bd. Pub. Wks., Harry B. Riley, Secy., for paving with asphaltic cement and broken stone base and asphaltic wearing surface 2 alleys; also cement sidewalks on Newport Ave., 15th and several other streets; also improving Anaheim St., between Daisy Ave. and west City Limits. Work consists of grading and paving with asphalt, 6 in. concrete base (25 ft. wide), construction of Bridge No. 1, 60 ft. long; No. 2, 12 ft. long; No 3, 24 ft. long; No. 4, 36 ft. long; No. 5, 12 ft. long; No. 6, 12 ft. long, together with wing walls, abutments, bulkheads, approaches, etc. All bridges to be 24 ft. wide.

★**Los Angeles, Cal.**—Contract for constructing concrete culverts macadam pavements in Road Dist. No. 42, between Burbank and Hollywood, has been awarded to Chas. T. Salata, 1544 3d St., Santa Monica, at $23,455.

★Contract for improving E. 7th St., from Broadway to Railroad Ave., in Wilmington Dist., has been awarded to Fairchild-Gilmore, Wilton Co. by Bd. Pub. Wks. at $129,368.

★Contract for paving with asphalt E. 7th St., Wilmington, has been awarded by Bd. Public Wks. to Fairchild-Gilmore-Wilton Co., Pacific Electric Bldg., at $129,368.

★**Manhattan Beach, Cal.**—Contract awarded Jan. 27 for constructing speedway, 5-in. concrete base, oil and screening wearing surface, to Crown Contract Co., Ocean Park, at 13 cts. per ft.; total, $17,215. Other bids: E. Schilling, Burbank, $18,490; J. D. Kneen, Santa Monica, $19,715, and Chas. T. Salata, Santa Monica, $20,372. M. M. Murray, City Engr.

★**Porterville, Cal.**—Irwin H. Althouse, City Engr., writes that contract for grading and paving 33 blocks, about 472,750 sq. ft., asphalt pavt. 1½ in. on 5-in concrete base awarded to Federal Constr. Co., San Francisco, at 12.83 cts. per sq. ft. and 600 lin. ft. curb, 60 cts. per ft.

Redlands, Cal.—About $1,750,000 bonds for constructing highways have been sold.

Stockton, Cal.—Bids desired until Mar. 2 by Eugene D. Graham, Clk. County Bd. Superv., Stockton, for furnishing and operating a fully equipped ditcher or dredger, either float or skid type, for construction of a grade for I. L. Borden Rd., said grade to be constructed from levee on left bank of Middle River to levee along right bank of Old River, approximately 4¼ miles.

Bids reported desired until Mar. 2 by County Bd. Supervisors for improving about 5 miles of the Upper Sacramento River Rd.

Pocatello, Idaho.—City Council is considering grading and paving in Local Improvement Dist. No. 12; cost about $50,000.

Dorval, Que.—The Provincial Road Dept. at Quebec will probably in April let contract for paving the main road at Dorval with bituminous macadam, about 30,000 sq. yd., with 16,600 lin. ft. curb, stone or concrete. T. Sullivan, Asst. Secy., Dorval.

Hamilton, Ont.—See "Water Works."

Medicine Hat, Alta.—Bids desired by Public Works Com. until Feb. 25 for paving Finlay Bridge over Saskatchewan River.

Vancouver, B. C.—County contemplates constructing 10 miles gravel roads from end of Pacific Highway hard surface to La Center; cost about $80,000.

STREET CLEANING AND GARBAGE DISPOSAL.

Items Arranged Geographically

Lockport, N. Y.—Council reported to be considering construction of a garbage disposal plant, to cost $10,000 to $20,000. John R. Earl, Mayor.

Dublin, Ga.—An election will probably soon be held to vote on issue of $75,000 bonds for erecting a cold storage plant, garbage disposal plant, curb streets, for new schools, and other purposes.

Alliance, O.—Bd. of Health is reported to be considering constructing garbage disposal plant.

Dayton, O.—Bids desired by Fowler S. Smith, City Purchasing Agent, until 12 o'clock noon, Feb. 26, for furnishing equipment for garbage disposal plant; plans on file for reference, at New York office of Engineering Record.

Ft. Worth, Tex.—See "Sewerage and Sewage Disposal."

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Items Arranged Geographically

Docks, Wharves, Etc.—Buffalo, N. Y.—The Squaw Island Development Corp. reported formed with a capital of $100,000 to purchase, develop and improve Squaw Island lands in Niagara River within city limits of Buffalo, including building of docks, wharves, bulkheads and drydocks, connecting island with ship canal in Black Rock harbor; also constructing switches and roadways connecting with the International Bridge and the construction of warehouses, grain elevators, mills, factories, shops, etc. Incorporators said to include Daniel E. Knowlton, Buffalo, and David H. Burrell, Little Falls.

Pier—New York, N. Y.—Bids desired until Mar. 1 by R. A. C. Smith, Comr. Docks, for Contr. 1401, Class 1—For furnishing material and constructing new pier at foot of W. 46th St., Boro. Manhattan. Security $120,000.

★**Ottumwa, Ia.**—John T. Brady, City Engr., writes following are bids opened Feb. 8 for paving: (a) Kansas Paving & Constr. Co., Kansas City, Mo., $42,310 (awarded contract); (b) McGuire & Stanton Constr. Co., Leavenworth, Kan., $42,950; (c) J. C. Blunk, Ottumwa, $45,274; (d) Keokuk Quarry & Constr. Co., Keokuk, $45,418.

	*(a)	(b)	(c)	(d)
27,142 sq. yds. 1-course brick, 3½ x 4 x 8½ in., cement filled, laid on old brick and stone foundation	$1.39	$1.44	$1.44 to 1.47	$1.49
12,022 sq. yds. repairing bottom course	.25	.20	.25 to .50	.27
136 cu. yds. repairs on macadam foundation	2.90	2.25	4.00	3.25
202 cu. yds. haul and dump sand, brick, etc	.45	.60	.50	.45
27,182 cu. yds. overhaul	.015	.015	.02	.015
6 x 20 in. Portland cement curb, per lin. ft.	.40	.50	.50	.60
1,054 lin. ft. redress, relay and reset old curb	.18	.25 to .30	.20	.25
519 lin. ft. 6 x 20 in. Portland cement curved curb, with 3½ x ¼ in. armored iron	.68	.54	.90	.74
355 lin. ft. 4 x 12 in. Portland cement header curb	.40	.20	.30	.40

★*Items marked thus give the names of parties awarded contracts.*

Hydro-Electric Plant — Seneca Falls, N. Y.—M. G. Barnes, of Albany, is engineer for Seneca Falls Power Cor., which is about to be incorporated, for construction of a hydro-electric power plant at Seneca Falls, capable of developing 7500 10-hour hp. Ernest G. Gould, of Seneca Falls, is attorney for company.

★**Dock—Troy, N. Y.**—Contract reported awarded by the Troy Gas Co. to Great Lakes Dredge & Dock Co., Albany, for construction of a 250-ft. dock at Smith Ave.: cost $20,000.

★**Seawall — Allenhurst, N. J.**—Contract awarded Feb. 13 for constructing concrete seawall to J. W. Brooks, of Ocean Grove, at $11,367. Other bids: Jesse A. Howland, Sea Bright, $13,300; John W. Heller, Newark, $15,600; J. C. Lyons, New York, $13,413. Chas. K. Savage, Boro. Clk.

Fish Wharves — Washington, D. C.—Bids were opened by the Comrs. D. C. (O. P. Newman, Chmn.) Feb. 11 for reconstructing fish wharves on Potomac River front, and bids were received on 3 different propositions. W. D. Murray & Co., Inc., Norfolk, Va., bid low for the first 2 propositions: Wharves with reinforced concrete decks, supported by timber pile bents, at $21,586, or if supported by concrete arch walls, at $21,791, and Dorsey & Miller Co., Washington, D. C., bid lowest on Proposition 3, at $39,000 for reinforced concrete decks, supported on concrete piles, according to their own design.

★**Breakwater—Wilmington, N. C.**—Contract was awarded Feb. 9 at the office of the Chief of Engrs., Washington, D. C., for constructing breakwater, including shore connection, at Cape Lookout, N. C., to D. L. Taylor & Co., of Medina, N. Y., at a total of $1,073,358 (bids for this work were opened Jan. 5 by Maj. H. W. Stickle, Corps Engrs., U. S. A., Wilmington). For all bids received see Engineering Record of Jan. 16.

Dredging—Charleston, S. C.—Bids desired until Mar. 19 by Maj. G. A. Youngberg, Corps Engrs., U. S. A., Charleston, for dredging in Ashley River, S. C., advertised in Engineering Record.

★**Grading, Etc. Terminal — Savannah, Ga.**—Contract for filling in, raising and grading land for new $1,000,000 terminal reported awarded by the Ocean Steamship Co. to the J. W. Fitzgerald Co., of Savannah, at about $40,000. The new terminal is immediately west of the present wharves. The concrete work of the new wharves is well under way.

Drainage—Jacksonville, Fla.—The Trustees of Upper St. Johns River Drainage Dist., controlling an area of some 265,000 acres of land in Florida, at a meeting in office of P. A. Vans Agnew, attorney for the board at Jacksonville, elected Isham Randolph, of Chicago, Ill., as engineer; he will begin a series of surveys to locate lines of canals and drainage ditches. The tax of 17 cts. per acre levied for this work will raise a sum of approximately $40,000, and, after all is ready, the main work will be financed through other means. Headquarters of board will be at Cocoa, Fla.

Drainage Bonds—Ashland, Miss.—Press reports state bids desired until Feb. 27 by County Drainage Comrs. for $23,000 Tippin River Drainage Dist. bonds.

★**Levee—Greenville, Miss.**—Contract reported awarded by the Mississippi Levee Comrs. to Burt, Bond & McMurray for levee enlargement, including Carolina enlargement and banquette, Valewood enlargement and Shiloh new levee, aggregating 433,000 cu. yds. at 15.48 cts. per cu. yd.

Drainage—Crowley, La.—Citizens of Estherwood and Morse, in Arcadia Parish, are reported to have voted to issue $38,000 bonds for a drainage system.

Dam—Harrisonburg, La.—Following are reported to be the bids opened Feb. 5 by Maj. J. R. Slattery, Corps Engrs., U. S. A., Vicksburg, Miss., for building Dam No. 2, a lockmaster's dwelling, etc., on Ouachita River at Harrisonburg, La.: Midland Bridge Co., Kansas City, Mo., $182,454; Blodgett Constr Co., Kansas City, Mo., $201,984; Miller Eng. Co., Little Rock, Ark., $113,596; Geo. C. Hodgeson, Dayton, O., $169,182.

Drainage—Westover, La.—Bids desired until Feb. 23 by Bayou Nolan Drainage Dist. (D. V. Easton, Secy., Westover) for constructing drainage canal and widen and deepen Bayou Allegator. Estimated yardage, 133,000.

★**Lock and Dam—Maysville, Ky.**—Contract awarded to Bates & Rogers Constr. Co., Chicago, Ill., for constructing lock and dam No. 33, Ohio River, near Maysville, Ky., at $972,544 (bids opened Jan. 26 by Lieut. Col. H. Jervey, Corps Engrs., U. S. A., at Cincinnati, O.). For unit prices see Engineering Record of Feb. 6.

Dredging — Cleveland, O.—Bids desired until Feb. 25 by Commissioner Purchases and Supplies for dredging Cuyahoga River.

Ditch—Millersburg, O.—Plans will be completed in about 2 months for a ditch to be constructed jointly by Holmes and Tuscarawas Counties, between Baltic and Bar Mills. W. L. Reidenback, of Millersburg, Engr. for Holmes County.

Ditch — Port Clinton, O.—Comrs. of Ottawa, Sandusky and Wood Counties reported to be considering the improvement of Schulte ditch; total cost about $80,000.

Channel—Tiffin, O.—Bids desired by Albert J. Hafley, City Clk., Mar. 10 for purchase of $60,000 bonds, to be used for improving channel of Sandusky River. J. I. Oberlander, City Engr.

★**Drainage — Bloomfield, Ind.**—Contract for construction of Beehunter ditch in Washington, Grant and Stafford Townships, 7 miles in length, reported awarded to Fred C. Morgan, of Vincennes, at $29,500.

Levee Work—Linton, Ind.—Bids desired until Mar. 2 for approximately 200,000 yds. ditch and levee work. Floating dredges barred. K. L. Ogle, Engr., Linton.

Levee, Etc.—Lewiston, Ill.—Preliminary surveys are being prepared by Chas. E. Bradbury, of Banner, for levee, ditch and pumping plant for Liverpool Dike and Duck Creek.

Ditch—Grand Rapids, Wis.—Bids desired until Mar. 1 by Wood County Drainage Dist. (B. C. Chandos, Secy.), for about 17½ miles dredging work.

Dam—Grantsburg, Wis.—A report has been presented to Village Council for construction of a dam on Wood River to utilize water power to operate electric plant, and cost is estimated at $20,000.

★**Ditches — Bemidji, Minn.** — Contracts for 4 ditches reported awarded by County Comrs. as follows: Judicial Ditch No. 18, to the International Falls Constr. Co., at $307,541, or 12½ cts. per cu. yd.; No. 14, to Bemidji Drainage Co., at $158,968, or 13½ cts. cu. yd.; Nos. 17 and 20, both to E. A. Dahl & Co., of Duluth, at $98,172 and $51,843, respectively.

★**Ditches — Fairmont, Minn.** — Contract awarded Feb. 9 for constructing judicial ditches as follows: No. 28, to Anton Jefsen, Clear Lake, Ia., at $41,700; No. 42, to J. S. R. Hansen, Northwood, Ia., at $21,450, and No. 44, to W. C. Markland & Co., Fairmont, at $12,500.

★**Ditches—Slayton, Minn.**—Contract for constructing ditches awarded as follows: Feb. 10, to Chris. Axelson, of Clear Lake, Ia., for Ditch 37, at $28,800; on Feb. 11, to Hans Peterson, and Theo. Jansen, of Lakefield, at $7,496. E. V. O'Brien, Co. Aud.

River Bank Protection—St. Louis, Mo.—Bids desired until Mar. 10 by Col. McD. Townsend, Corps Engrs., U. S. A., St. Louis, for 10,000 lin. ft. river bank protection, to include materials and work.

Drainage—Bay City, Tex.—Bids desired until Mar. 6 by County Drainage Dist. No. 5 (Geo. C. Corcoran, Chmn., Bay City) for constructing drainage system, requiring about 253,362 cu. yds. earth excavation. E. N. Gustafson, Engr., Bay City.

★**Irrigation — Barstow, Tex.** — Contract reported awarded to I. C. Sherwood, of Terrell, to construct a reservoir in Ward County; cost about $476,000 for irrigation purposes.

Jetty and Dike Work—Galveston, Tex.—Bids desired until Mar. 16 by Lieut. Col. C. S. Riche, Corps Engrs., U. S. A., Galveston, for jetty and dike work at Aransas Pass, Tex., advertised in Engineering Record.

Wharf—Houston, Tex.—Press reports state Mayor Campbell has announced that work will soon begin on the construction of a wharf, 50 x 500 ft., and a warehouse, 200 x 500 ft.; cost about $125,000.

Ditches—Tecumseh, Okla.—Bids desired until Mar. 3 by County Commissioners, Tecumseh (Julius Krouch, Chmn.), for constructing lateral ditches in Salt Creek Drainage Dist. No. 2, as follows: Wolf Creek Lateral No. 1; Big Cottonwood Creek lateral No. 2; Board Creek Lateral No. 3; Little Cottonwood Creek Lateral No. 4; O'Possum Creek Lateral No. 5. J. R. Hill, Engr., Shawnee.

Ditches—Bellingham, Wash.—Plans reported being prepared by Co. Engr. C. M. Adams for constructing about 10 miles of ditches for irrigation purposes in Dist. 8, 3 miles of ditches in Dist. 7 and for work in Dist. 10.

★**Stone for Jetty—Lone Tree, Wash.**—Contract reported awarded Feb. 10, by Maj. J. B. Cavanaugh, Corps Engrs., U. S. A., Burke Bldg., Seattle, for furnishing and delivering stone for jetty construction at Lone Tree, to Cascade Constr. Co., Portland, Ore., at $60,550.

Drains—North Yakima, Wash.—It is reported that all bids for laying of drains in Drainage Dist. No. 4, South Nob Hill, have been rejected and the County Engr. authorized to draw plans calling for two sets of bids, one on cement tiling and the other on vitr. clay.

Bids reported desired by County Commissioners until Feb. 26 for constructing 21 miles open ditches for irrigation system in Dist. No. 2, involving removal of 550,000 cu. yds. earth and back filling along 6 miles of covered pipe. Probable cost $125,000.

Irrigation — Okanogan, Wash. — Plans reported prepared by G. J. Gardiner, Co. Engr., for constructing a $500,000 irrigation system, the canal to run from Night Hawk along east bank of Sinilahekin River, a distance of 3½ miles; and a branch by means of an inverted syphon across river 7 miles to Tonasket; another fork will run from point of diversion over north end of Osoyoos Lake by means of a syphon.

Irrigation—Payson City, Utah.—Following are unit prices of 5 lowest bids opened Feb. 3 by U. S. Reclamation Service, Provo, for construction of Div. 4 of the High Line Canal, Strawberry Valley Project, Utah: (a) Reynolds-Ely Constr. Co., Springville, $82,625; (b) Wasatch Grading Co., 312 Dooley Blk., Salt Lake City, $84,365; (c) H. G. Gilkerson, 524 Newhouse Bldg., Salt Lake City; $89,762; (d) Morrison-Knudsen Co., 12 and 13 Shaw Blk., Boise, Idaho, $89,895; (e) Utah Constr. Co., 421 Eccles Bldg., Ogden, $97,912.

	(a)	(b)	(c)	(d)	(e)
117,400 cu. yds. excav., Class 1	$0 22	$0.125	$0.175	$0.145	$0.1385
24,100 cu. yds. excav., Class 2	.22	.39	.38	.375	.36
13,000 cu. yds. excav., Class 3	.22	.84	1.00	.90	.85
10,000 yds. stas. overhaul	.02	.02	.02	.02	.02
2,500 cu. yds. excav. for structures, Class 1	.50	.50	.70	.50	.60
100 cu. yds. excav. for structures, Class 3	1.00	1.00	1.50	3.00	2.00
1,250 cu. yds. concrete in structures	8.00	7.70	8.00	7.45	8.50
135,500 lbs. placing reinforcing steel	.005	.015	.015	.034	.01
2,200 cu. yds. backfilling	.50	.40	.45	.50	.45
25 cu. yds. rockfill	1.35	1.25	2.00	2.00	1.50
100 sq. yds. paving	1.35	1.50	2.50	2.00	1.50
200 lin. ft. lay. 6-in. vitr. pipe	.08	.10	.15	.15	.15
100 lin. ft. lay. 12-in. vitr. pipe	.15	.15	.25	.20	.25
50 lin. ft. lay. 18-in. vitr. pipe	.25	.25	.35	.30	.35
50 lin. ft. lay. 24-in. vitr. pipe	.40	.35	.50	.40	.60
36 lin. ft. lay. 36-in. c.-i. pipe	1.50	.45	1.00	1.00	1.00
462,000 sq. ft. 4-in. concrete canal lining	.075	.075	.0675	.075	.10
5,300 sq. ft. 2½-in. concrete canal lining	.07	.07	.06	.065	.10

Sea Wall—Seattle, Wash.—Construction of a concrete sea wall on pile foundation from north margin of Madison St. to south side of Washington St., the paving of a 38-ft. roadway and construction of a 14-ft. concrete walk on west side of Railroad Ave., reported being considered by Dept. of Pub. Utilities. City Engineer and representatives of railroad companies interested. A. H. Dimock, City Engr., estimates cost of improvement at $120,000, and specifications call for 5250 sq. yds. brick block pavt., 190,000 ft. planking, 1400 sq. yds. concrete sidewalks and 4700 cu. yds. concrete retaining wall.

Irrigation — Sunnyside, Wash. — Lowest bid opened Jan. 30 by U. S. Reclamation Service, Sunnyside, for water stave pipe line for Snipes Mountain pumping plant, submitted by Pacific Tank & Pipe Co., Portland, Ore., at the following bid: 905 lin. ft. 60-in. wood stave pipe, $1.75; 1518 bands ⅝-in. steel, with shoes, etc., for pipe, 85.3 cts.; 3355 lin. ft. 30-in. wood stave pipe, complete, 72 cts.; 17,568 bands ½-in. steel for 30-in. pipe, 29.6 cts.; 444 squares painting wood stave pipe, $1.35; total $11,094. Other bids: Washington Pipe & Fdry. Co., Tacoma, Wash., $11,143; Pacific Coast Pipe Co., Seattle, $12,075; Valley Constr. Co., North Yakima, $14,835; Geo. P. Wright, Tacoma, $11,318; Redwood Mfg. Co., San Francisco, Cal., $13,331; Portland Wood & Pipe Co., Portland, Ore., $11,167.

Bids were opened same time and place as above on 20 and 18-in. wood stave pipe on 3 different schedules, and following are totals of lowest bids received: Schedule 1, Washington Pipe & Fdry. Co., Tacoma, Wash., $5,108; Schedules 1 A and 1 B, Pacific Tank & Pipe Co., Portland, Ore., $3,894 and $2,956, respectively.

Reclamation Work — Nicolaus, Cal.—Citizens of this place, which is included in reclamation district 1001, are reported to have voted $500,000 bonds to be sold to complete reclamation work of the district now under way.

Deep Water Terminal—San Francisco, Cal.—The Southern Pacific Co. (W. H. Hood, Ch. Engr., San Francisco) is reported to be considering the construction of a deep water tunnel at Channel St. The plan is to make it a deep waterway 300 ft. wide between bulkheads, and with a depth of 30 ft. at low tide; estimated cost of entire work, including bulkheads, dredging, bridges and new tracks and warehouses, is from $2,500,000 to $3,000,000.

Dam—Phoenix, Ariz.—W. R. Elliott, Engr., has submitted to the Bd. of Governors, Salt River Valley Water Users' Assoc., at Phoenix, his report on Verde Dam, which he finds is feasible, and estimates cost of 3 different propositions as follows: No. 1, gravity section masonry dam, straight in plan, spillway located west of dam about 2500 ft., at $804,310; No. 2, rockfill dam with concrete face, water control to be outlet well with 3 gates, also to cost $804,310; and No. 3, reinforced multiple arched dam, water control and outlet to be a well with 3 gates at different elevations, estimated cost $1,271,566.

Reclamation Work—Payson City, Utah.—Bids desired until Mar. 10 by U. S. Reclamation Service, Provo (A. P. Davis, Dir. and Ch. Engr.), for construction, involving about 12,800 yds. excav. and 2100 yds. reinforced concrete. The work is located near Payson City on the San Pedro, Los Angeles & Salt Lake R.R. and the Tintic Branch of the Denver & Rio Grande R.R.

Canal Work—Salt Lake City, Utah.—The City Comn. has decided to extend surplus canal, from its present outlet to Cone flume, a distance of about 2 miles; estimated cost $12,000.

Pipe, Etc.—Hamilton, Ont.—Bids desired until Mar. 1 by Chester S. Walters (Mayor), Chmn. Bd. Control, for furnishing iron pipe, hydrants, valves, castings, sewer brick, sewer pipe, cement, limestone dust, asphalt, asphalt sand, sand and gravel, vitr. brick, creosoted wooden block, rubble or field stone, etc.

ELECTRIC RAILWAYS.

Items Arranged Geographically

Brooklyn, N. Y.—The Public Service Comn. for the First Dist., 154 Nassau St., New York, has approved plans and forms of contract submitted by the New York Municipal Corp. for furnishing structural steel to straighten and widen existing elevated structure to provide for a third track on the Broadway line, Brooklyn, from a point near Myrtle Ave., to a point near Aberdeen St., to be submitted to open competitive bidding; contract calls for delivery of steel to begin 60 days from date of contract, and to be completed within 6 months from that date. The company has already purchased steel and let contract for 3d track of the Bway. line from Havemeyer St. to Myrtle Ave.

Chambersburg, Pa.—Application for charter will soon be made to build an electric railway to connect McConnellsburg and Ft. Louden, distance of 10 miles. Edw. J. Post, D. H. Patterson said to be interested.

Hellertown, Pa.—Lehigh Valley Transit Co. (W. W. Wysor, Ch. Engr., Allentown) contemplates laying a double track between South Bethlehem and Hellertown.

Pittsburgh, Pa.—John W. Reid, Colona, Pa.; Edw. Thomas and others contemplate constructing an electric railway from East Liverpool, O., to Pittsburgh, Pa.

Raleigh, N. C.—Carolina Power & Light Co. contemplates constructing extension to Boylan Heights in spring.

Miami, Fla.—Plans are being considered by Palm Beach & Everglades Ry. Co. to build steam or electric railway from West Palm Beach westerly to a point 6 or 8 miles from shore of Lake Okeechobee to a point at or near Lake Hicopochee, distance of 75 miles.

Bristol, Tenn.—Bristol Traction Co. (Fred Dulaney, Gen. Mgr., Bristol) is asked to consider plans for an extension from Big Creek into Shady Valley section of Johnson County.

Henderson, Ky.—Henderson Traction Co. (Wm. A. Carson, Gen. Mgr., Evansville, Ind.) plans to build an extension from Henderson to Owensboro.

Marietta, Ohio.—Marietta-Parkersburg Ry. Co. is chartered to build railway between Marietta and Parkersburg. Capital, $10,000. Incorporators, H. H. Archer, E. Clark, Jr., and others.

Cleburne, Tex.—Southwestern Traction Co. (W. G. Hoag, Ch. Engr., Temple) contemplates constructing an extension between Cleburne and Ballinger.

Lufkin, Tex.—Gulf & Pecos Valley Ry. Co. plans to build 120-mile railroad from Sabine Lake to Lufkin. P. B. Bledsoe, Lufkin, Pres., and P. A. McCarthy & Sons Co., Lufkin, Ch. Engrs.

Klamath Falls, Ore.—An electric railway is being planned from Eureka, Cal., up coast to Requa and up Klamath River to Klamath Falls. D. W. Hanson, Pres. Eureka Development Asso., Eureka, said to be interested.

Ottawa, Ont.—Work will begin in spring by Ottawa & St. Lawrence Electric Ry. Co. on Perth to Smith Falls section of electric railway which is making belt 300 miles in length in Eastern Ontario. E. Malone, Ch. Engr.

RAILROADS.

Items Arranged Geographically

Mt. Union, Pa.—The East Broad Top R.R. & Coal Co. contemplates remodeling or reconstructing its facilities at Mt. Union, for purpose of transferring coal from narrow gauge to standard gauge cars after screening, and will consider plans and prices from engineering or contracting firms. Address E. O. Hall, Gen. Mgr., Orbisonia, Pa.

Philadelphia, Pa.—Press reports state that bids are desired by the Survey Bureau Mar. 1 for grade crossing removal in various parts of city; estimated cost, including opening of new streets, more than $1,000,000. This work will include opening of Tulip and Emerald Sts., under Richmond branch railway; cost to city about $500,000; abolition of all grade crossings on Chestnut Hill Branch Ry., north from Chelten Ave., to cost about $350,000, and abolition of grade crossings in Lehigh Ave., between Richmond St. and Aramingo Ave.; estimated cost $150,000. M. L. Cooke, Dir. Dept. Pub. Wks.

★*Items marked thus give the names of parties awarded contracts.*

Poy Sippi, Wis.—The Waushara County R.R. Co. reported incorporated, with a capital of $25,000, to construct a steam railway 8½ miles in length between Poy Sippi and Red Granite. Incorporators: Richard Frank, J. E. Wendt and others.

Minneapolis, Minn.—The Minneapolis & St. Louis R.R. Co. (R. G. Kanly, Ch. Engr., Minneapolis) reported to have decided to spend about $100,000, to include improvement to freight transfer facilities and an increase in the terminal roundhouse and several miles of switching tracks.

Harrison, Ark.—A railroad to connect this town on the Missouri and North Arkansas Railroad with Bergman on the White River branch of the Missouri Pacific Railroad, a distance of 10 miles, is a proposition made by W. C. Linthicum, of Ft. Smith, to the Harrison Commercial Club.

Beeville, Tex.—The Southern Pacific Co. (H. J. Jones, of Houston, Engr. of Construction) is making a survey for an extension of its Victoria-Beeville division, from Beeville to Fowlerton, a distance of about 75 miles; also a branch line from Eagle Pass or Spofford to Crystal City, a distance of about 50 miles.

San Antonio, Tex.—The San Antonio, Fredericksburg & Northern R.R. Co. (H. T. Love, Gen. Mgr., Fredericksburg) reported to have decided to issue $361,000 bonds for extension of line northward to Brownwood, 125 miles, where connection will be made with the Gulf, Colorado & Santa Fé and the Missouri, Kansas & Texas Railroads.

Port Arthur, Ont.—The Canadian Northern Ry. Co. (Thos. Turnbull, Asst. Ch. Engr., Winnipeg, Man.) is reported to have plans for a large increase in its terminal switching yards in Port Arthur, which call for about 50 additional tracks or an increase of about 40 miles.

PUBLIC BUILDINGS AND SCHOOLS.

Items Arranged Geographically

Brunswick, Me.—Citizens voted in favor of erecting a new high school.

Agawam, Mass.—Erection of high school costing $70,000 reported under consideration. Walter E. Gushee, of Agam, Supt. Schools.

Boston, Mass.—Steps being taken to erect the building for school committee headquarters on Tremont St. on site of the old Probate Bldg.; cost of new structure $300,000. Address Mayor; Harrison H. Atwood, Archt., Dorchester.

Cambridge, Mass.—Following are 3 lowest bids opened Feb. 10 by the Overseers of Poor for rebuilding addition to City Home: Geo. T. O'Brien, 94 Prescott St., Cambridge, $32,760; John B. Byrne, Sidney St., Cambridge, $34,500; J. E. Locatelli Co., $34,716.

Chicopee, Mass. — Certain architects have been asked to submit plans by Feb. 26 to the School Comn. for the high school addition; cost $60,000.

Fall River, Mass.—Bids desired until Mar. 2 at office of City Recorder, for erecting 3 and 4-story brick and stone police station at Bedford and High Sts.; also separately for heating, plumbing, ventilation and electrical work. E. M. Corbett, Archt., Fall River.

Lynn, Mass.—Bids desired by Edwin Earp & Son, Archts., 333 Union St., until Mar. 10 for erection of a 3-story, 97 x 77 ft. nurses' home for the Lynn Hospital Corp. Cost about $60,000.

★**Bridgeport, Conn.**—Ernest R. Kohler, Asst. Clk. Bd. Contract and Supply, writes following are 4 lowest bids opened Feb. 1 by Bd. Contract and Supply for construction of almshouse: Oscawana Bldg. Co., New York, $109,670 (awarded contract); Casey & Hurley, Bridgeport, $110,248; Lewis A. Miller, Meriden, $114,319; H. Wales Lines Co., Meriden, $114,444. Contract for heating and ventilating building awarded to Wm. P. Kirk Co., Bridgeport, at $49,980.

Bristol, Conn.—Bids are about to be received by Chas. T. Treadway, Chmn. Dist. No. 1 for erection of a 2-story fireproof 15-room school, 142 x 119 ft., to have common brick facing, limestone trim, slag roof, ash trim interior and plumbing; heating and electrical work will be let under separate contract. Walter P. Crabtree, Archt., New Britain.

Danbury, Conn.—Bids desired until Feb. 27 by O. Wenderoth, Superv. Archt., Washington, D. C., for constructing U. S. Public Building at Danbury. This opening is intended to supplement that of Nov. 4 for construction complete of the building.

★**Meriden, Conn.**—Reported H. Wales Lines Co., of Meriden, has secured contract for erecting school and convent for St. Stanislaus Church; cost $100,000.

Blackwell's Island, N. Y.—Plans filed for 2-story brick fireproof building to be erected on Blackwell's Island, opposite 68th St., for industrial building for women, cost $56,000; owner, Dept. Pub. Charities, N. Y. City; Walker & Gillette, Archts., 128 E. 37th St.

New York, N. Y.—Plans filed for 10-story brick administration building to be erected at 45 Amsterdam Ave., for N. Y. Nursery and Children's Hospital, to cost $100,000; Chas. Volz, Archt., 2 W. 45th St.; 4-story brick fireproof school at 4 E. 98th St., for St. Bernard's School Bldg. Co., cost $75,000; Delano & Aldrich, Archts., 4 E. 39th St.

★Contract for fireproofing work on group of buildings on Randall's Island and in New City Farm Colony, Staten Island, awarded to Spuyten Duyvil Constr. Co., 2306 8th Ave., at $27,170.

Watervliet, N. Y.—Reported bids desired by Demers, Mosley & Campain, Troy, for erecting the 3-story brick city hall, 70 x 110 ft. Cost, $50,000. Edwin W. Joslyn, Mayor.

Camden, N. J.—Plans being prepared by Chas. J. Brooks, 518 Federal St., Philadelphia, Pa., for two 2-story brick and concrete hospital buildings to be erected in Asyla, Camden County, for County Comrs. at Camden. Cost $50,000.

Camden, N. J.—Bd. Educ. passed resolution to issue $412,000 bonds for new high school.

Glen Ridge, N. J.—Citizens voted in favor of issuing $60,000 bonds to erect a 10-room addition to the Central School. Address Bd. Educ.

Glen Ridge, N. J.—Bids desired until Feb. 26 by Bd. Educ. (B. Frank Carter, Pres.) for $60,000 school bonds.

★**Hackettstown, N. J.**—Contract for erecting additions and making alterations to the public school awarded to Thos. Smith & Son, New Rochelle, N. Y., at $60,365, for heating to E. C. Woolforth & Co., New York, at $8,269.

★**Newark, N. J.**—Contract for erecting Centre Market awarded to Essex Constr. Co., Newark, at $560,700.

★**Short Hills, N. J.**—Bd. Educ. of Millburn awarded to Fredk. Kilgus, Newark, contract for erecting 2-story, 4-room extension to high school at $37,000.

Trenton, N. J.—Bids desired until Mar. 2 by State House Comn. (E. I. Edwards, Secy.), at the office of the Governor, for furnishing material and extending the House of Detention for Convict and Criminal Insane at the State Hospital, Trenton, advertised in Engineering Record.

Wildwood, N. J.—Plans prepared by Clyde S. Adams, Philadelphia, Pa., for a 2-story brick and stone school to cost $60,000.

Woodstown, N. J.—Three lowest bids received for erecting 2-story brick and terra cotta and stone school were: Alex. Chambley, $74,250; Eugene Tourison, $79,977, and Wm. R. Dougherty, $79,490.

Allentown, Pa.—All bids opened Feb. 3 by Bd. Trus. Homeopathic State Hospital for Insane, near Allentown, for erecting 2 buildings for tuberculosis patients and an isolation cottage for said hospital have been rejected, as all exceeded appropriation available. H. I. Knapp, Supt.

Charleroi, Pa.—Tentative plans being prepared for a municipal building. A 3-story brick building costing $35,000 is contemplated.

Harrisburg, Pa.—Reported plans submitted for annex to the Capitol costing $2,000,000. Matter is under consideration.

Irwin, Pa.—School directors of Irwin and North Huntington Township have decided to erect in Irwin Borough a school costing $100,000.

Johnsonburg, Pa.—Citizens voted in favor of issuing $50,000 bonds to erect a school.

Philadelphia, Pa.—Reported bids desired about Mar. 1 by Trus. of Mercy Hospital for erecting 4-story stone, brick and terra cotta building costing $50,000. E. S. Lemmon, Archt., Box 389.

Pottsville, Pa.—Bids desired until Feb. 24 by Bd. Educ. for (Robt. A. Reid, Secy.) for erecting a high school annex to the rear of the Patterson School building, 12th and Market Sts. Frank Reilly, Archt., Pottsville.

Frederick, Md.—Plans prepared by J. B. Hamme, of York, Pa., for 3 buildings to be erected at Hood College. Cost, $65,000.

Prince Frederick, Md.—Bids desired until Mar. 5 by the Bldg. Com. (Thos. Parran, Chmn.) for furnishing material and erecting a courthouse. T. Kent Roberts, Archt., 924 17th St. N. W., Washington, D. C.

Smyrna, Del.—Bids desired until Mar. 29 by O. Wenderoth, Superv. Archt., Washington, D. C., for construction, complete (including mechanical equipment, interior lighting fixtures and approaches), of U. S. Post Office at Smyrna.

Washington, D. C.—Snowden Ashford, Municipal Archt., has completed plans and it is reported bids are about to be asked by the Comrs., D. C., for erecting the Park View School, to contain 16 class rooms, gymnasium, etc., and is to cost $132,000.

★**Arlington, Va.**—Contract for erecting memorial amphitheatre and chapel in Arlington Natl. Cemetery awarded to Geo. H. Fuller Co., Washington, D. C., using Danby marble, at $519,000.

Ft. Myers, Va.—Lowest bid opened Feb. 11, by Capt. E. A. Sturges, Q. M. U. S. A., Ft. Myer, for constructing post buildings, was submitted by Burgess & Richardson, of Washington, D. C., at $17,791.

Petersburg, Va.—See "Paving and Roads."

★**Pulaski, Va.**—Contract for erecting school awarded to Barbour & Co., Roanoke, at $37,000.

★**Huntington, W. Va.**—Contract for erecting the high school awarded to Henry Perun, Huntington, at $239,169 and for lighting, heating and ventilating to Bockway Plumb. & Supply Co., Huntington, at $58,854.

Dublin, Ga.—See "Street Cleaning and Garbage Disposal."

Rome, Ga.—Hugh McCrary, Clerk of Council, writes that citizens voted Feb. 11 in favor of $75,000 municipal building bonds and $25,000 bonds toward a hospital fund.

New Orleans, La.—Steps being taken by Sewerage & Water Bd. to erect at Carondelet and Lafayette Sts., a 5-story fireproof building.

Camden, Tenn.—A. S. Hassell, Co. Clk., writes bids are desired about Apr. 1, for erection of a 2-story reinforced concrete and brick court house, 60 x 100 ft. Cost reported to be about $40,000.

Edw. Dougherty, of Nashville, reported architect for above building.

★**Bowling Green, O.**—Contract awarded Feb. 12 for erecting power house at Bowling Green State Normal School to Fitzpatrick & Hoephner, of Columbus, at $45,881. Howard & Merriam, Archts., 8 E. Broad St., Columbus, O. D. C. Brown, of Napoleon, Secy. Bd. Trus.

Cincinnati, O.—Danl. Lawrence, Secy. University of Cincinnati, writes plans are not yet complete for proposed brick and concrete building to be used for laboratory, gymnasium and recreation hall for women; cost $150,000, with $18,000 additional for equipment. Architect, A. Lincoln Fechheimer, Lyric Theatre Bldg.

Cleveland, O.—Architects have been asked to submit competitive plans for the $2,000,000 public library.

Two branch libraries are to be erected, one at E. 79th and Superior Ave. and the other at Superior Ave. and 105th St.

★**Finlay, O.**—Reported contract for erecting the 2 schools, 16 and 20 rooms each, has been awarded to Structural Steel Co., Dayton, at $196,223.

Fostoria, O.—Bids desired until Mar. 1 by Geo. L. Hoege, Clk. Bd. Educ., for $150,000 bonds, to be used to erect a new central section for High School and repairing Union St. School.

Fostoria, O.—School bonds amounting to $150,000 sold.

Lancaster, O.—Plans of Wilbur T. Mills, Columbus, have been selected for the City Hospital; cost, $50,000.

★**McClure, O.**—Contracts for erecting school awarded as follows: General contract, to A. F. Morelock, Marysville, at $24,752; heating and ventilating, Bryce Htg. & Ventilating Co., Toledo, at $3,700, and plumbing, to Chas. Hinchman, Toledo, at $2,484.

Tiffin, O.—Lowest bid received for erecting U. S. Post Office submitted by Colonial Constr. Co., Charlotteville, Va., at $66,793 for limestone and $69,793 for Ohio limestone.

Zanesville, O.—Reported bids desired until Mar. 1 by Bd. Trus. Bethesda Hospital for erecting new hospital buildings according to plans by H. C. Meyer, Zanesville.

Upper Sandusky, O.—School bonds amounting to $40,000 have been sold.

★**Warren, O.**—Contract for erecting the high school awarded to J. C. Davidson, at $124,584; heating and ventilating, to Columbus Htg. & Ventilating Co., at $14,400.

Washington, C. H., O.—Reported bids desired until Mar. 4 for erecting the high school; Frank L. Packard, of Columbus, Archt. Cost $30,000.

Elkhart, Ind.—Bids desired by City Clerk about Apr. 1 for erection of a brick, tile and concrete city hall, to cost complete $70,000. Architect, E. Hill Turnock, of Elkhart.

★**Gary, Ind.**—Contract for erecting U. S. Post Office awarded to Chas. McCaul Co., Philadelphia, Pa., at $95,790.

Huntington, Ind.—Plans of Elmer E. Dunlap, of Kokomo, have been selected for the high school to cost $135,000.

Lagro, Ind.—Plans of Elmer E. Dunlap, of Kokomo, selected for the $30,000 school to be erected here.

Grand Rapids, Mich.—Plans being prepared by Wernette, Bradfield & Meade, Grand Rapids, for reconstructing and remodeling the St. Andrew's school, which was destroyed by fire recently. Materials to be brick and terra cotta.

Bids on the above school will be received by the architects about March 1; it will be 3 stories high, 88 x 144 ft.

Highland Park, Mich.—Bids reported desired until Feb. 25 by Bd. Educ. (Walter S. Conley, Secy.) for erecting the 2-story fireproof brick and stone Southeastern High School on Oakland and Massachusetts Aves., to cost $100,000. W. D. Butterfield, Archt., 1113 David Whitney Bldg., Detroit.

Quincy, Ill.—School building bonds amounting to $80,000 have been sold.

Streator, Ill.—The Bd. of Education is considering erection of a $45,000 primary school.

Madison, Wis.—Reported all bids received by Bd. Educ. for erecting Fair Oaks School rejected as being too high. Lowest bid $59,000.

★**Prairie du Chien, Wis.**—Contract has been awarded for erection of a dormitory for Campion College as follows: To A. Qwack, of Dubuque, Ia., Lineham & Molo, of Dubuque, Ia., and Thill Manning Whalen Co., La Crosse, total cost $120,000. Architects, E. Brielmaier & Son Co., Milwaukee.

Racine, Wis.—Bd. Educ. selected plans of Guilbert &. Funston, of Racine, for the proposed $90,000 public school.

Des Moines, Ia.—Bids desired until Mar. 23 by O. Wenderoth, Superv. Archt., Washington, D. C., for repairing, remodeling, etc., of U. S. Post Office and Courthouse, Des Moines.

Iowa.—Plans have been submitted to the Legislature by State Bd. Educ., Des Moines, for the following buildings: At the State Univ., Iowa City—Dental buildings, cost $150,000; detention hospital, cost $30,000; remodel chemistry and geology building, $225,000; library wing, $100,000. Iowa State College, Ames—Animal husbandry laboratory, $80,000; hospital, $30,000; dormitory, $60,000; agricultural engineering building, $150,000; science building, $50,000. Iowa State Teachers' College, Cedar Falls —2 additional wings to dormitory, $200,000.

Jefferson, Ia.—Bids reported desired until Mar. 8 by Secretary Bd. Educ. for $50,000 high school bonds.

Johnston, Ia.—Bids desired until Mar. 6 by Bd. Directors, Independent Consolidated School Dist. of Webster and Jefferson townships (B. B. Dewey, Secy.) for erecting a school at Johnston; Kraetsch & Kraetsch, Archts., Securities Bldg., Des Moines.

Manson, Ia.—Citizens voted in favor of issuing $40,000 bonds to erect high school.

Pella, Ia.—We are informed that plans will probably be ready about Mar. 1, and opened about Apr. 1, for erection of proposed high school, to cost about $40,000. Architect, Jas. S. Cox, of Esterville.

Glenwood, Minn.—It is reported that a high school costing $50,000 is under consideration. Address Bd. Educ.

★**St. Paul, Minn.**—Contract for erecting public almshouse awarded to Cameron & Co., St. Paul, at $78,000; heating to Roszycki & Collins, at $5,124, and plumbing to L. H. Peter at $4,475.

Chanute, Kan.—Following are four lowest bids received for erecting U. S. Post Office: (a) limestone, (b) sandstone: Mayben & Fruechtel, Gadsden, Ala. (a) $50,790; (b) $52,590; Geo. W. Stiles Constr. Co., Chicago, Ill., (a) $54,640; Potters Lumber Co., East Liverpool, O., (a) $54,700; (b) $56,400; John W. Pratt, Chanute, (a) $55,842; (b) $57,293; Dieter & Wenzel Constr. Co., Wichita, (b) $57,589.

Lawrence, Kan.—School building bonds amounting to $75,000 have been sold.

Kearney, Neb.—State Bd. Control, Lincoln, has accepted plans of Jas. H. Craddock, Omaha, for building to be erected at the State Tubercular Hospital, and which is to cost $35,000.

Jamestown, N. D.—Reported bids desired until Mar. 8 by Bd. Educ. for erecting 2-story addition and remodeling the north side school. G. R. Horton, Archt.

Havre, Mont.—Reported bids desired Mar. 25 by Co. Comrs. for erecting court house; cost, $150,000. F. F. Bossuot, of Havre, Archt.

★**Kansas City, Mo.**—J. B. Jackson, Jr., Secy. Bd. Directors of School Dist., writes that contracts for erecting schools have been awarded as follows:

★Cullen Bryant School (bids opened Feb. 4) to J. R. Vansant Constr. Co., Kansas City, $74,950. Next three lowest bidders: L. M. Rowland & Co., $76,000; F. H. Crites, $77,432, and Eilenberger & Co., $78,490.

★Mark Twain School (bids opened Feb. 6), H. Eilenberger, Chicago, Ill., $84,500 (awarded contract). Next three lowest bidders: Cashner & Leavengood, $84,997; Geo. H. Sildhoff Constr. Co., $86,977, and L. M. Rowland & Co., $89,999.

Greeley, Colo.—Bids desired until Mar. 22 by Co. Comrs. for erecting a court house advertised in Engineering Record. W. N. Bowman, Archt., 915 Central Savings Bank Bldg., Denver.

Everett, Wash.—Bids desired until Mar. 22 by O. Wenderoth, Superv. Archt., Washington, D. C., for the construction, complete (including mechanical equipment and approaches), of U. S. Post Office, Everett.

Republic, Wash.—School Dist. No. 1 is about to ask bids on $40,000 high school building bonds.

★**Seattle, Wash.**—Contract for erecting 7-story reinforced concrete cold storage building at Spokane and Whatcom Sts. for the Port of Seattle Comrs. awarded to Harrington Peters Co., Oriental Bldg., at $111,000.

Harrington & Peters, Oriental Bldg., contractors for above warehouse, desire sub-bids until Mar. 5 on hollow tile, reinforced steel, structural steel, sheet metal and roofing, plumbing, electric work, etc., in connection with construction of the said warehouse.

School bonds amounting to $170,000 have been sold.

★*Items marked thus give the names of parties awarded contracts.*

Walla Walla, Wash.—Robt. F. Tegan, Morgan Bldg., Portland, is architect for the hospital to be erected to replace St. Mary's, recently destroyed by fire. New building to be of steel and reinforced concrete and cost $250,000.

Walla Walla, Wash.—Reported steps are to be taken at once by the Sisters of St. Vincent for erecting the hospital; addition cost, $250,000.

Portland, Ore.—Directors of Union Hill School Dist. have ordered Ernst Kroner, Archt., Worcester Bldg., to ask bids for erecting the high school in Gresham.

Salem, Ore.—The Methodists propose erecting at Willamette Univ. a girls' dormitory costing $25,000.

★**The Dalles, Ore.**—Contract for erecting the U. S. Post Office awarded to Geo. Isackson, Portland, Ore., at $73,978.

Auburn, Cal.—School bonds amounting to $45,000 have been sold.

El Centro, Cal.—Central High School Dist., including El Centro and other adjoining districts, voted in favor of issuing $125,000 bonds to erect buildings for high school use.

Fresno, Cal.—Following are 4 lowest bids opened Feb. 1 at office of M. F. McClure, State Engr., Sacramento, for erecting main building and gymnasium and boiler house at Fresno State Normal School:

General construction, Wingate Constr. Co., $248,641 (awarded contract); F. O. Engstrum Co., $258,672; W. E. Kier Constr. Co., $263,600; F. Rolandi, $274,300.

Plumbing, sewers, gas fittings, etc., F. O. Engstrom Co., $38,880; Arthur Hess, $39,746; Thos. Haverty Co., $29,800; Hateley & Hateley Co., $40,285.

Boiler plant equipment, gymnasium and boiler house, Thos. Haverty Co., $10,750; F. P. Walsh, $10,787; Scott Co., $11,080; Robt. Dalziel, Jr., $11,217.

Following are four lowest bids received Feb. 5 by School Bd. for erecting the Washington School: Trewhitt & Shield, $103,988; J. L. Daly, $105,600; Smith & James, $105,961, and Frank Rehorn, $107,-500.

Kingsburg, Cal.—School bonds amounting to $40,000 have been sold.

San Francisco, Cal.—Reported bids desired Feb. 23 by Library Trus. for the excavation and foundation work for the public library to be erected in the Civic Center.

Plans accepted for the new Mission Branch library to cost $44,000.

★**Stockton, Cal.**—Contract awarded to Jas. Mulcahy for erecting a 2-story reinforced concrete hospital for St. Joseph Home on N. California Ave.; cost, $100,-000. Walter King, Archt., Elks Bldg.

★**Stockton, Cal.**—Contract for erecting the hospital building at St. Joseph Home awarded to Jas. Mulcahy. Cost about $100,000. Walter King, Archt., Stockton.

Susanville, Cal.—An election will probably soon be held to vote on issuing $100,-000 bonds for erecting court house and $20,000 for a hospital. Geo. E. Bassett, Co. Clk.

★**Ft. Huachuca, Ariz.**—Capt. E. S. Walton, Constructing Q. M., writes that contract for erecting the various buildings at this post (bids for which were opened Dec. 21 at this post), has been awarded to J. M. Sparks, of Douglas, Ariz., at about $191,630. For all information regarding sub-bids apply to contractor direct.

Burley, Idaho.—An election soon to be held to vote on issuing $80,000 bonds for a brick school.

Montreal, Que.—Official reports state bids desired until Feb. 25 by City Comrs. (L. N. Senecal, Secy.) for erecting a 2-story stone Municipal Library at Sherbrooke and East Sts., including plumbing, ventilating and heating, electric wiring, vacuum cleaning system, etc. Eugene Payette, Archt., 103 St. Francis Xavier St.

Port Arthur, Ont.—City Council is considering construction of a city hall and auditorium; estimated cost $20,000.

Vancouver, B. C.—Revised plans completed by A. A. Cox, Carter Cotton Bldg., for an addition to the Vancouver General Hospital, and bids for construction desired by Trustees Feb. 27.

★Contract for erecting operating room addition to the Vancouver General Hospital awarded to Booker Campbell & Whipple, Williams Bldg., at about $95,000.

PRIVATE BUILDINGS.

Items Arranged Geographically

Boston, Mass.—Morris Rudnick, 103 Waumbeck St., will erect four brick apartment houses on Howard St., Brookline, to cost $100,000.

Longmeadow, Mass.—The Turn Verein Club is having plans prepared by Bruno Wezny, Springfield, for a clubhouse.

Southbridge, Mass.—Plans being prepared by Saml. Macintosh, Providence, R. I., for a $75,000 theater to be erected by Thos. F. Murphy.

Worcester, Mass.—Reported bids desired by Armour & Co. for erecting a 3-story brick cold storage building on Sumner St. for the branch in this city.

New Haven, Conn.—Permit issued for a 5-story reinforced concrete factory to be erected on Winchester Ave. and Mason St. for the Winchester Repeating Arms Co. at a cost of $58,000.

★**Torrington, Conn.**—Contract for erecting the Elk's Clubhouse awarded to Torrington Bldg. Co., of Torrington, at $33,071.

Brooklyn, N. Y.—Plans filed for following buildings: 5-story brick rectory at Vanderbilt and Lafayette Aves., for Rev. Chas. E. McDonnell, cost $60,000, Gustave Steinbach, Archt., 15 E. 40th St.; 4-story brick store and tenement at Church Ave. and E. 18th St., for C. A. Holding Co., cost $50,000, Wm. T. McCarthy, Archt., 16 Court St.; 4-story brick tenement at Jamaica and Van Sicklen Aves., for Mrs. Sherley L. Yoyd, 105 W. 40th St., New York, cost $60,000, Wm. C. Winters, Archt., 106 Van Sicklen Ave.

Buffalo, N. Y.—Plans completed by International Ry Co. for city and suburban terminal building to be erected at Pearl and Franklin Sts.

Long Island City, N. Y.—Preliminary plans being prepared by Albert Thompson, 1133 Bway., New York, for an office building to be erected at Van Alst Ave. by Degnon Contr. Co., New York. Cost $200,000.

★**New York, N. Y.**—Contract for erecting the Y. M. C. A. building at Washington Ave. and 161st St. awarded to Cauldwell-Wingate Co., 381 4th Ave. Cost about $225,000. Louis E. Jallade, Archt., 37 Liberty St.

Plans filed for the following buildings 6-story brick apartment house at 180th St. and Haven Ave. for Great Northern Constr. Co., Blum & Blum, Archts., 505 5th Ave.; 12-story brick apartment house at 569 West End Ave., for Paterno Constr. Co., cost $500,000, Gaetan Ajello, Archt., 1 W. 34th St.; 8-story brick fireproof apartment hotel at 13 W. 55th St., for Geo. Backer Constr. Co., cost $200,000, Wallis & Goodwillie, Archts., 56 W. 45th St.; 16-story brick lofts and store building at 32 W. 25th St., for Irvel Realty Co., cost $200,000, Geo. F. Pelham, Archt., 30 E. 42d St.; 13-story brick office building at 34 E. 51st St., for Robt. W. Goelet, cost $200,000, Warren & Wetmore, Archts., 16 E. 47th St.; 16-story brick lofts and store building at 414 4th Ave., for Elias Kempner, cost $225,000, Geo. F. Pelham, Archt., 30 E. 42d St.; 11-story brick fireproof show rooms at 18 E. 50th St., for Grand Rapids Furniture Co., cost $200,000, Rouse & Goldstone, Archts., 38 W. 32d St.; 5-story brick tenement at Fox St. and Ave. St. John, for Howala Constr. Co., cost $50,000, Moore & Landsiedel, Archts., 3d Ave. and 148th St.; 5-story brick tenement at Hoe Ave. and 165th St., for Hoe Ave. Realty Co., cost $75,000, Gronenberg & Leuchtag, Archts., 303 5th Ave.; 2-story brick garag at Southern Blvd. and Barretto St., for Columbia Constr. Co., cost $50,000, Edw. J. Byrne, Archt., 148th St. and 3d Ave.

Plans filed for the following buildings: Two 5-story brick tenements at Bway. and Academy St. for Hudson Investment Co., cost $120,000; Geo. F. Pelham, Archt., 30 E. 42d St.; 6-story brick apartment house at 161st St. and Ft. Washington Ave. for Hudson View Constr. Co., cost $150,000; Young & Wagner, Archts., 1204 Bway.; 9-story brick fireproof hotel at 3 to 9 W. 67th St., for Hotel Des Artistes, Inc., cost $800,000; Geo. Mort Pollard, Archt., 127 Madison Ave.; two 5-story brick tenements at Bailey Ave. and 229th St. for Freeman Street Co., cost $80,000; John P. Boyland, Archt., Fordham Road and Webster Ave.; two 5-story brick tenements at Valentine Ave. and Fordham Road, also two 5-story brick tenements at Fordham Road and Tiebout Ave., for Eberhardt & Podgur, total cost, $210,000; Krembourg Architectural Co., 1029 E. 163d St., archts.; 5-story brick tenement at 176th St. and Marmion Ave., for Benenson Realty Co., cost $50,000; Tremont Architectural Co., 401 Tremont Ave.; 5-story brick tenement at Albany, Crescent and Bailey Ave. for Michael J. Martin, cost $75,000; Moore & Landsiedel, Archts., 148th St. and 3d Ave.

★Contract for the foundation work for the 9-story apartment house at 122 E. 76th St. for Jaytison Constr. Co.; Schwartz & Gross, Archts., 347 5th Ave. Standard Hercules steel piles to be used in the foundation.

Plans filed for the 23-story annex to be erected at the Hotel McAlpin, Bway. and 34th St. for the Greeley Sq. Hotel Co.; cost $1,000,000. Warren & Wetmore, Archts., 70 E. 45th St.

Mayer & Mayer, Inc., 30 W. 29th St., will erect at West End Ave. and 80th St., an apartment house probably 13 stories high.

The Eighty-sixth Street and West End Ave Co., controlled by Mulliken & Moeller, architects and builders, 103 Park Ave., reported to have secured the site at 304 to 308 W. 86th St., on which it is proposed erecting a modern apartment house, probably 12 stories high.

Saratoga Springs, N. Y.—A 2-story brick and stucco terminal building is to be erected by the Hudson Valley R. R. Co. according to plans by Ludlow & Peabody, New York. Cost, $50,000.

Syracuse, N. Y.—Preliminary plans have been prepared for a $50,000 3-story club house which the members of the University Club, Larned Bldg., propose erecting at 407 W. Fayette St. Taylor & Bonta, Archts., Gurney Bldg.

Utica, N. Y.—Reported bids desired by J. C. Schultz, 1370 Main St., for a storage building and stable, 75 x 175 ft., 3-story, brick, steel and concrete, to be erected by the West End Brewing Co.

Yonkers, N. Y.—Plans being prepared by Edw. C. Heald, Philipsburgh Bldg., for a public market to be erected on James St. Building to have concrete floor and to be covered with a fireproof trussed roof.

★**Atlantic City, N. J.**—Contract for erecting a 3-story brick addition to the power house for Leeds Co., awarded to Philip G. Hannum, 16 N. Georgia Ave.; Savery, Sheetz & Savery, Archts., Philadelphia, Pa.

Camden, N. J.—Plans being prepared by Ballinger & Perrot, Philadelphia, for a 6-story, 75 x 200 ft., brick and reinforced concrete addition to the factory of the Victor Talking Machine Co.

Kenvil, N. J.—Hercules Powder Co. is arranging to enlarge plant and will erect 6 or 8 buildings.

Newark, N. J.—Plans prepared by Henry Baechlin, 665 Broad St., for a theater to be erected on N. 7th St., near Orange St., for Edw. W. McDonough; cost $100,000.

★**Bedford, Pa.**—Contract for erecting marble fireproof building for the joint use of the First Natl. and the Bedford Trust Co., awarded to Lawrence & Critchfield, Somerset; cost about $50,000.

Irwin, Pa.—Plans prepared by J. C. Fulton, Uniontown, for the First Presbyterian Church, which is to cost $35,000.

New Kensington, Pa.—Bids desired until Feb. 25 by P. M. Ihrig, 1050 Victoria Ave., for erecting a church and parsonage for the First Evangelical Lutheran Church. Thos. G. Easton, Archt., 847 5th Ave.

Parker's Landing, Pa.—Bids desired at once for erecting the Globe Hotel. Plans may be seen at office of J. B. Stoner, Parker's Landing, and residence of J. S. Brady, Parker.

Philadelphia, Pa.—Plans about completed by B. J. Medoff & Son, 524 Walnut St., for a 1-story brick and stone theater and store building to be erected at 31st and Wilt Sts., for Jos. Fisher, 720 Sansom St.; cost, $50,000.

★**Walbrook (P. O. Baltimore), Md.**—Reported contract for erecting brick and stone Starr Methodist Church at Garrison and Alto Aves., awarded to Edw. G. Turner; cost, $35,000. Owen & Sisco, Archts., Continental Bldg.

Washington, D. C.—Plans being prepared by C. A. Didden & Son, Corcoran Bldg., for a 7-story reinforced concrete building to be erected at 834 10th St., N. W., for Fries, Beall & Sharpe Co.

★**Atlanta, Ga.**—Contract for erecting the Connally Building at Whitehall and Alabama Sts. for Dr. E. L. Connally awarded to Wells Bros. Co., of Washington, D. C., at about $300,000. The building is to be steel frame, terra cotta and fireproof, and later on is to be raised to 16 stories, and will cost complete about $500,000. W. L. Stoddart, of Atlanta and New York, Archt.

★**Memphis, Tenn.**—Contract for erecting the Jewish Temple at Poplar Ave. and Montgomery St. awarded to Jas. Alexander Constr. Co., of Memphis. Cost complete about $120,000.

★Contract for erecting the Shop of Culture at Main St. and Monroe Ave. awarded to Carrol-Blake Constr. Co., of Birmingham, Ala., at $43,413; Fisher Htg. Co. secured the contract for the heating and Pritchard Bros. the contract for the plumbing in said building.

Bellefontaine, O.—Reported steps being taken to rebuild at once the Christian Church which was recently destroyed by fire. New building to cost about $40,000. Rev. Traverce Harrison, Pastor.

Cincinnati, O.—A 10-story office building is to be erected at 6th and Sycamore Sts. by Val Duttenhofer, Jr., shoe manufacturer, 8th and Sycamore Sts.

★**Cleveland, O.**—John Gill & Son, Cleveland, awarded contract on percentage basis to erect a 15-story addition to the New England Bldg. on Vincent Ave. for Guardian Savings & Trust Co. Cost $1,-250,000.

Cleveland, O.—Plans filed for the apartment house to be erected at Chester Ave. and E. 24th St. for W. H. White, according to plans by Lehman & Schmidt, Garfield Bldg.

★**Columbus, O.**—Contract for erecting the Deshler Hotel awarded to Selden Breck Constr. Co., St. Louis, Mo. Subcontract for plumbing and heating awarded to S. A. Esswein Co. Holabird & Roche, Chicago, Ill., Archts.

Reported Z. L. White Co. will erect an 8-story building on N. High St.

Wooster, O.—Reported plans are to be prepared by Henry Murphy, of Akron, for the Masonic Temple which it is proposed erecting here on N. Market St. W. R. Barnhart is a member of the committee having the matter in charge.

★**Indianapolis, Ind.**—Contract for erecting the Fidelity Bldg., an 8-story fireproof building, at 148 E. Market St., awarded to Bedford Stone & Constr. Co., Indianapolis. Rubush & Hunter, Archts., Indianapolis.

Indianapolis, Ind.—Plans of Wilbur T. Mills, Columbus, O., selected for the $250,-000 hotel to be erected at Senate and Washington Sts.

Chicago, Ill.—Plans reported being prepared for the new club house to be erected at the foot of Buena Ave., North Side, for the members of the Hampden Club, now at 2732 Hampden Court. Cost $100,000.

★Contract awarded to Wells Bros., Chicago, for erecting the Lyon & Healy building to cost $750,000; building to be fireproof, terra cotta and brick with granite base.

Plans being prepared by A. S. Alschuler, Steger Bldg., for a 14-story Eiger Bldg. to be erected at Randolph and Dearborn Sts., at an approximate cost of $350,000.

Peoria, Ill.—Second Church of Christ (Scientist) reported approved plans for a $35,000 edifice.

Springfield, Ill.—The Knights of Pythias propose erecting a temple costing $50,000.

Marshalltown, Ia.—N. K. Aranoff, of Chicago, Ill., reported to be taking steps to rebuild the store and office building at 116 E. Main St., which was recently destroyed by fire. A 2 or 3-story brick building, costing at least $25,000, is contemplated.

Fairfax, Minn.—Bids desired until Feb. 27 by Rev. I. F. Albrecht, Secy. Bldg. Com., Evangelical Lutheran Church, for erecting an edifice. A. F. Gauger, Archt., St. Paul.

Minneapolis, Minn.—See "Railroads."

St. Paul, Minn.—Permit issued to Sperry Realty Co., 2017 Pittsburg Bldg., for a 3-story brick commission house to be erected at 11th and Jackson Sts., at a cost of $125,000.

Great Falls, Mont.—Plans completed by Geo. H. Shanley, for a $250,000 hotel to be erected for the New Park Hotel Co., and contract for construction will be let about March 1.

★**Beaumont, Tex.**—Contract for erecting parish house on Calder Ave. for St. Mark's Episcopal Church awarded to Warren McDaniel, Port Arthur. Cost $28,000.

Kingsville, Tex.—Plans prepared by Scofield Eng. Co., Philadelphia, Pa., for two 20-ton ice machine plants to be erected here for Texas Electric Co., Boston, Mass.

Victoria, Tex.—Plans prepared by Scofield Eng. Co., Philadelphia, for a 50-ton ice machine plant to be erected for the Texas Electric Co., Boston, Mass.

Seattle, Wash.—J. J. Tinker and R. C. Smyth, with Perry & Inch, New York Blk., have secured a site at Borden Ave. and Harrison St. on which it is proposed erecting a 6-story warehouse, concrete, at a cost of $125,000.

A. V. Williams, New York Blk., is agent for parties who propose erecting at Jackson and 6th Ave. S, two hotels and several store buildings, costing about $250,000.

Plans being prepared for a 3-story hotel to be erected at 7th Ave. and King St. to cost about $50,000; A. V. Williams, New York Blk., may be able to give further information.

★**Seattle, Wash.**—Contracts awarded to Coast Constr. Co., 2500 1st Ave., for a 7-story reinforced concrete warehouse and loft building at Pike St. and Western Ave. for E. E. Simpson, Haller Bldg. H. Bittman, Henry Bldg., Engr.

Fresno, Cal.—Plans completed by R. F. Fechlin, Rowell Bldg., for a 2-story brick and steel hotel to be erected by Mrs. Fulton Berry and to be known as the Fulton Hotel. Cost, $30,000.

Los Angeles, Cal.—Adolph Zukor, Hotel Alexandria, reported to be taking steps to erect a film plant in this city; cost reported at $1,000,000.

Oakland, Cal.—Plans completed by C. N. Burrell, Albany Bldg., for a 4-story brick and steel apartment house to be erected at Alice and 16th Sts., for M. J. Meyers, at a cost of $100,000.

★**San Francisco, Cal.** — Contract for erecting Wells Fargo Bldg. at the foot of Mission St. awarded to Fred. L. Hansen, at $38,946.

Redondo Beach, Cal.—Louis J. Baumbeck is reported taking steps to erect a 3-story building on Diamond St. and Pacific Ave., to cost $50,000.

NEW INDUSTRIAL PLANTS.

See also "Private Buildings."

Items Arranged Geographically

Manchester, N. H.—The McElwain Shoe Co. reported to be taking steps to erect at their plant in South Manchester an addition costing $100,000.

Ellicottville, N. Y.—Plans being prepared for a 2-story 40 x 80-ft. factory which is to be erected for Fitzpatrick & Weller.

Ithaca, N. Y.—The Cayuga Lake Cement Co. is to be enlarged to a 2000 bbl. capacity by a company in which the J. G. White Eng. Co., 43 Exchange Pl., New York, N. Y., is interested.

Mt. Vernon, N. Y.—A 2-story factory, 50 x 100 ft., is to be erected in West Mount Vernon by Willow Brook Dairy Co., 5 S. Fulton Ave., according to plans by A. Murray Jenks, 11 S. 14th Ave.

Revised plans have been completed for

★*Items marked thus give the names of parties awarded contracts.*

a 2-story, 40 x 110-ft. factory, to be erected at Pearl St. by Benford Mfg. Co., Pearl St.

Manitowoc, Wis.—The Atlas Eng. Co. of Milwaukee, reported to be planning erecting a plant in this city. Citizens Assoc. (Rudy Stockinger, Secy.-Treas.) may be able to give further information.

Mandan, N. D.—Reported Northern Pacific R. R. (W. L. Darling, Ch. Engr., St. Paul, Minn.) is considering enlarging the shops here.

Galveston, Tex.—A permit has been issued to James Stewart & Co., Houston, for erecting the superstructure of the Sunset Central concrete elevator on Pier 45; cost $200,000.

Van Nuys, Cal.—The Van Nuys-Owensmouth-Marian Produce & Canning Co. has been organized and will erect a packing house at Van Nuys. A. J. Boulanger, Manager; G. G. Williamson, of the Orange County Vegetable Growers Assoc., Pres.

Thorold, Ont.—The Exolon Co. (C. J. Brockbank, Mgr.) intends erecting an addition to their factory costing $25,000.

MISCELLANEOUS.

See also "Hydraulic Construction and River Improvements."

Items Arranged Geographically

Cement—New York, N. Y.—Bids desired until Feb. 26 by Col. W. M. Black, Corps Engrs., U. S. A., New York, for furnishing and delivering 32,000 bbl. American Portland cement, advertised in Engineering Record.

Elevator—Cedargrove, N. J.—Bids desired until Feb. 24 by Com. on Pub. Bldgs., Co. Bd. Chosen Freeholders, Newark (Aug. L. Lacombe, Chmn.), for furnishing and installing in new Tuberculosis Hospital, Cedargrove Township, an electric passenger elevator. Plans may be secured at office of John F. Capen, Archt., 207 Market St., Newark.

Broken Stone for Light Station—Philadelphia, Pa.—Bids desired until Mar. 11 by the Lighthouse Inspector, Philadelphia, Pa., for furnishing and depositing 1000 tons of broken stone and 2100 tons of riprap at Brandywine Shoal Light Station, Delaware Bay, advertised in Engineering Record.

★**Cranes—Cleveland, O.**—Contract has been awarded to Cleveland Crane & Eng. Co., Cleveland, for 2 electric traveling cranes for Division Ave. pumping station at $8,490. (Bids opened Jan. 28.)

Street Signs — Indianapolis, Ind.—Bids desired by Bd. of Pub. Wks. until Feb. 24 for street signs and posts for approximately 2000 intersections. B. J. T. Jeup, City Engr.

Cement, Steel, Etc.—Sidney, Ia.—Bids desired until Feb. 24 by F. B. Jenkins, Co. Aud., for furnishing the following material in car lots, f.o.b. any station in this county: 1,700 bbls. standard Portland cement; 40,000 lbs. reinforcing steel, Havemeyer or cold twisted bars, car lots or less; 2,000 lin. ft. corrugated culvert pipe; 500 lin. ft. c.-i. pipe; 500 lin. ft. boiler iron pipe; 150 M ft. b.m. No. 1 full sawed Douglas fir bridge lumber, mixed cars, consisting of bridge caps, flooring and joists, various sizes; 8,250 lin. ft. red cedar piling, 14 to 36 ft.; 1,200 tons screened and washed gravel and sand.

Cement—Seattle, Wash.—Bids desired until Mar. 3 (readvertisement) by Port of Seattle Comn. (O. E. Remsberg, Secy.) for furnishing 20,000 bbl. Portland cement.

Elevators—Ft. William, Ont.—Bids desired until Feb. 25 by R. C. Desrochers, Secy. Dept. Pub. Wk., Ottawa, Ont., for installing a standard passenger elevator and a motor generator set to supply current for elevator in the Examining Warehouse, Ft. William.

Elevators—Port Arthur, Ont.—Bids desired until Feb. 24 by R. C. Desrochers, Secy. Dept. Pub. Wks., Ottawa, for installing a standard passenger and 2 standard freight elevators for Examining Warehouse, Port Arthur.

Cement—Winnipeg, Man.—Bids desired until Mar. 5 (not Mar. 15 as previously stated) by S. H. Reynolds, Chmn. Comrs., 901 Boyd Bldg., for supply of from 60,000 to $150,000 bbls. Portland cement.

Elevator—Vancouver, B. C.—Bids reported desired until Feb. 23 by Dept. Pub. Wks. for an electric elevator for Immigration Building. E. E. Blackmore, Archt., Vancouver.

Proposals

For Proposals Advertised see Pages 71, 72 and 73.

WATERWORKS.

Bids Close.		See Eng. Record.
Feb. 23.	Extensions, Laramie, Wyo.	Jan. 30
	Adv. Jan. 30, Feb. 6.	
Feb. 23.	Pipe, etc., Ottawa, Ont.	Feb. 13
Feb. 23.	Reservoir, Joliet, Ill.	Feb. 20
Feb. 23.	Water Wks. System, Magnolia Park, Tex.	Feb. 20
Feb. 24.	Filtration Work, Cleveland, O.	Feb. 13
Feb. 24.	Add to System at Hospital, Cedar Grove, N. J.	Feb. 20
Feb. 25.	Meters and Machinery, Chicago, Il.	Feb. 13
	Adv. Feb. 13, 20.	
Feb. 25.	Pump, Atlantic City, N. J.,	Feb. 13
	Adv. Feb. 13.	
Feb. 25.	Meters, Youngstown, O.	Feb. 20
Feb. 25.	Well, Reservoir, Etc., St. Paul, Minn.	Feb. 20
Feb. 25.	Equipping Pump. Station, Toledo, O.	Feb. 20
Feb. 25.	Water Works Improv., Mineral, Kan.	Feb. 20
Feb. 26.	Castings, Boston, Mass.	Feb. 20
Feb. 27.	Reservoir Roof, Whitewater, Wis.	Feb. 20
Feb. 27.	Mains, South Newburgh, O.	Feb. 20
Mar. 1.	Pump. Plant for P. O. Bldg., Kansas City, Kan.	Jan. 30
Mar. 1.	Bonds, Viola, Ill.	Feb. 20
	Adv. Feb. 20.	
Mar. 1.	Pipe, Etc., Hamilton, Ont.	Feb. 20
Mar. 1.	Mains, Etc., New York, N. Y.	Feb. 20
Mar. 2.	Reservoir, Fitchburg, Mass.	Jan. 23
	Adv. Feb. 6.	
Mar. 2.	Valves, etc., Toronto, Ont.	Feb. 13
Mar. 2.	Pump, Equipment, New Ulm, Minn.	Feb. 20
Mar. 2.	Add. to Supply, South Stillwater, Minn.	Feb. 20
Mar. 3.	Water Wks., Lyons, N. Y	Feb. 13
	Adv. Feb. 13, 20.	
Mar. 3.	Tank and Tower, Elyria, O.	Feb. 20
Mar. 8.	Mains, East View, O.	Feb. 13
Mar. 9.	Mains, Euclid, O.	Feb. 13
Mar. 9.	Meters, Los Angeles, Cal.	Feb. 13
Mar. 9.	Pumping Station, Toledo, O.	Feb. 20
	Adv. Feb. 20.	
Mar. 10.	Water Supply Improv., Salem, Mass.	Feb. 20
	Adv. Feb. 20.	
Mar. 12.	Pipe, Etc., Royal Oak, B. C.	Feb. 6
Mar. 15.	Pumps, Spokane, Wash.	Feb. 13
Mar. 18.	Tanks, Philippine Islands	Feb. 20
	Adv. Feb. 20.	
Mar. 24.	Pumping Engine, Perth Amboy, N. J.	Feb. 20
	Adv. Feb. 20.	
Apr. 13.	Valves, Toronto, Ont.	Feb. 20
	Adv. Feb. 20.	

SEWERAGE AND SEWAGE DISPOSAL.

Bids Close.		See Eng. Record.
Feb. 23.	Philadelphia, Pa.	Jan. 30
Feb. 23.	Detroit, Mich.	Feb. 13
Feb. 23.	Mobile, Ala.	Feb. 20
Feb. 24.	Milwaukee, Wis.	Jan. 30
	Adv. Jan. 30 to Feb. 20.	
Feb. 24.	Baltimore, Md.	Feb. 20
Feb. 25.	Cleveland, O.	Feb. 20
Feb. 26.	Philadelphia, Pa.	Jan. 30
Feb. 26.	Mt. Morris, N. Y.	Feb. 13
	Adv. Feb. 13.	
Feb. 26.	Brooklyn, N. Y.	Feb. 13
Feb. 26.	Long Island City, N. Y.	Feb. 20
Mar. 1.	Philadelphia, Pa.	Jan. 30
Mar. 1.	Springfield, Mo.	Feb. 13
Mar. 2.	Sisseton, S. D.	Feb. 13
Mar. 2.	Upper Darby, Pa.	Feb. 20
	Adv. Feb. 20.	
Mar. 3.	Philadelphia, Pa.	Jan. 30
Mar. 3.	Lyons, N. Y.	Feb. 13
	Adv. Feb. 13. 20.	
Mar. 5.	Philadelphia, Pa.	Jan. 30
Mar. 6.	Columbus, O.	Feb. 20
Mar. 8.	East View, O.	Feb. 13
Mar. 8.	Parkesburg, Pa.	Feb. 20
	Adv. Feb. 20.	
Mar. 9.	Granville, O.	Feb. 20
Mar. 10.	Baltimore, Md.	Feb. 20
	Adv. Feb. 20.	
Mar. 17.	Butte, Mont.	Feb. 20
Mar. 22.	Enterprise, Ore.	Feb. 20

BRIDGES.

Bids Close.		See Eng. Record.
Feb. 23.	Portland, Ore.	Jan. 16
	Adv. Jan. 16 to 30.	
Feb. 23.	Knoxville, Ia.	Feb. 6
Feb. 23.	Mobile, Ala.	Feb. 13
	Adv. Feb. 13.	
Feb. 23.	Zanesville, O.	Feb. 13
Feb. 23.	Shawano, Wis.	Feb. 20
Feb. 23.	Grand Forks, N. D.	Feb. 20
Feb. 24.	Long Beach, Cal.	Feb. 20
Feb. 25.	Philadelphia, Pa.	Feb. 13
	Adv. Feb. 13, 20.	
Feb. 25.	Mt. Morris, Ill.	Feb. 20
Feb. 26.	Renton, Wash.	Feb. 13
Feb. 26.	Cincinnati, O.	Feb. 6
Feb. 27.	Spokane, Wash.	Feb. 13
Mar. 1.	Elkins, W. Va.	Feb. 6
Mar. 1.	Winona, Minn.	Feb. 20
Mar. 2.	Illinois	Jan. 30
Mar. 2.	La Conner, Wash.	Feb. 20
Mar. 2.	Tyndall, S. D.	Feb. 20
Mar. 2.	McArthur, O.	Feb. 20
Mar. 2.	Cleveland, O.	Feb. 20
Mar. 3.	Illinois	Jan. 30
Mar. 3.	Ft. Monroe, Va.	Feb. 6
	Adv. Feb. 6 to 20.	
Mar. 3.	Superior, Wis.	Feb. 6
Mar. 3.	Nelson, Neb.	Feb. 13
Mar. 3.	Mt. Holley, N. J.	Feb. 20
	Adv. Feb. 20.	
Mar. 5.	Canton, O.	Feb. 20
Mar. 9.	Illinois	Jan. 30
Mar. 15.	Cumberland, R. I.	Feb. 13
	Adv. Feb. 13.	
Mar. 16.	Illinois	Jan. 30
Mar. 17.	North Platte, Neb.	Feb. 20
———	Siam	Feb. 6
	Adv. Feb. 6, 13.	

PAVING AND ROADS.

Bids Close.		See Eng. Record.
Feb. 23.	Dundee, Mich.	Feb. 6
Feb. 23.	Ottawa, Ont.	Feb. 13
Feb. 23.	San Bernadino, Cal.	Feb. 13
Feb. 23.	Flint, Mich.	Feb. 20
Feb. 23.	Illinois	Feb. 20
Feb. 23.	Corsicana, Tex.	Feb. 20
Feb. 23.	New Brighton, N. Y.	Feb. 20
Feb. 23.	Zanesville, O.	Feb. 20
Feb. 24.	Paulding, O.	Jan. 30
Feb. 24.	Canton, O.	Feb. 6
Feb. 24.	East Moline, Ill.	Feb. 20
	Adv. Feb. 20.	
Feb. 24.	Ottawa, O.	Feb. 20
Feb. 24.	Mason City, Ia.	Feb. 20
Feb. 24.	Painesville, O.	Feb. 20
Feb. 24.	Buffalo, N. Y.	Feb. 20
Feb. 24.	Long Beach, Cal.	Feb. 20
Feb. 24.	Cleveland, O.	Feb. 20
Feb. 24.	New York, N. Y.	Feb. 20
Feb. 24.	Jersey City, N. J.	Feb. 20
Feb. 25.	Medicine Hat, Alta.	Feb. 20
Feb. 25.	Bonds, Lumberton, N. C.	Feb. 20
	Adv. Feb. 20.	
Feb. 25.	Jersey City, N. J.	Feb. 20
Feb. 26.	New York, N. Y.	Feb. 20
Feb. 26.	Sheboygan, Wis.	Feb. 20
Feb. 26.	Holton, Kan.	Feb. 20
Feb. 26.	Upper Sandusky, O.	Feb. 20
Feb. 27.	Wilmington, N. C.	Feb. 6
Mar. 1.	Upper Sandusky, O.	Feb. 13
Mar. 1.	Bonds, Starkville, Miss.	Feb. 13
	Adv. Feb. 13, 20.	
Mar. 1.	Mt. Holly, N. J.	Feb. 20
	Adv. Feb. 20.	
Mar. 1.	Townsend, Wash.	Feb. 20
Mar. 1.	Sandusky, O.	Feb. 20
Mar. 1.	Hamilton, Ont.	Feb. 20
Mar. 1.	Indiana	Feb. 20
Mar. 2.	Bonds, Jellico, Tenn.	Feb. 6
	Adv. Feb. 6 to 20.	
Mar. 2.	Wilkesbarre, Pa.	Feb. 13
Mar. 2.	Sanford, N. C.	Feb. 20
Mar. 2.	Indiana	Feb. 20
Mar. 2.	Stockton, Cal.	Feb. 20
Mar. 2.	Pittsburgh, Pa.	Feb. 20
	Adv. Feb. 20.	
Mar. 3.	Clarksdale, Miss.	Feb. 20
Mar. 5.	Watertown, N. Y.	Feb. 20
Mar. 6.	Rock Crusher, Reamstown, Pa.	Feb. 20
Mar. 6.	Columbus, O.	Feb. 20
Mar. 8.	East View, O.	Feb. 13
Mar. 8.	Bellingham, Wash.	Feb. 20
Mar. 8.	Indiana	Feb. 20
Mar. 8.	Pecos, Tex.	Feb. 20
Mar. 10.	Angola, Ind.	Feb. 20
	Adv. Feb. 20.	
Mar. 10.	Cleveland, O.	Feb. 20
Mar. 12.	Wilkesbarre, Pa.	Feb. 13
Mar. 12.	Davenport, Wash.	Feb. 20
Mar. 15.	Mt. Gilead, O.	Feb. 20
Mar. 15.	Mansfield, O.	Feb. 20
Mar. 22.	New Brunswick, N. J.	Feb. 20

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Bids Close.		See Eng. Record.
Feb. 23.	Dredge Tender, Galveston, Tex.	Jan. 30
	Adv. Jan. 30 to Feb. 20.	
Feb. 23.	Dredging, Portchester, N. Y.	Jan. 30
	Adv. Jan. 30 to Feb. 20.	
Feb. 23.	Ditch, Slayton, Minn.	Feb. 6
Feb. 23.	Drainage, Westover, La.	Feb. 20
Feb. 24.	Valves, etc., for Dry Dock No. 1, Panama	Jan. 9
Feb. 24.	Pump. Plant for Dry Dock, Panama	Jan. 9
Feb. 24.	Irrigation, Payson City, Utah	Jan. 30
	Adv. Jan. 30.	
Feb. 24.	Stone for Jetty, Savannah, Ga.	Jan. 30
	Adv. Jan. 30 to Feb. 20.	
Feb. 24.	Lock Gates, Louisville, Ky.	Jan. 30
	Adv. Jan. 30.	
Feb. 25.	Dredging, Toledo, O.	Jan. 30
	Adv. Jan. 30 to Feb. 20.	
Feb. 25.	Dredging, Cleveland, O.	Feb. 20
Feb. 26.	Irrigation Canals, North Yakima, Wash.	Feb. 20
Feb. 26.	Tow Boats, Cincinnati, O.	Jan. 30
	Adv. Jan. 30 to Feb. 20.	
Feb. 26.	Drainage, Kansas City, Kan.	Feb. 6
	Adv. Feb. 6, 13.	
Feb. 26.	River Wall, Cedar Rapids, Iowa	Feb. 13
Feb. 27.	Dredge, Kansas City, Kan.	Feb. 13
	Adv. Feb. 13, 20.	
Mar. 1.	Revetment, New London, Conn.	Jan. 23
	Adv. Jan. 30 to Feb. 20.	
Mar. 1.	Ditches, Upper Sandusky, O.	Feb. 13
Mar. 1.	Pier, New York, N. Y.	Feb. 20
Mar. 1.	Ditch, Grand Rapids, Mich	Feb. 20
Mar. 2.	Steel Flue Flats, Cincinnati, O.	Jan. 30
	Adv. Jan. 30 to Feb. 20.	
Mar. 2.	Levee Work, Linton, Ind.	Feb. 20
Mar. 3.	Dredging, Port Aransas, Tex.	Feb. 6
	Adv. Feb. 6 to 20.	
Mar. 3.	Ditches, Tecumseh, Okla.	Feb. 20
Mar. 6.	Drainage, Bay City, Tex.	Feb. 20
Mar. 9.	Dredging, Wilmington, N. C.	Feb. 13
	Adv. Feb. 13, 20.	
Mar. 10.	Canal Excav., Grand Junction, Colo.	Feb. 6
	Adv. Feb. 6.	
Mar. 10.	River Bank Protection, St. Louis, Mo.	Feb. 20
Mar. 10.	Reclamation Work, Payson City, Utah	Feb. 20
Mar. 15.	Pump. Plant for Lock, Seattle, Wash.	Feb. 6
	Adv. Feb. 6 to 20.	
Mar. 16.	Jetty and Dike Wk., Galveston, Tex.	Feb. 20
	Adv. Feb. 20.	
Mar. 19.	Dredging, Charleston, S. C.	Feb. 20
	Adv. Feb. 20.	

PUBLIC BUILDINGS AND SCHOOLS.

Bids Close.		See Eng. Record.
Feb. 23.	Hasbrouck Heights, N. J.	Feb. 6
Feb. 23.	Ithaca, N. Y.	Feb. 6
	Adv. Feb. 6.	
Feb. 23.	Ottawa, Ill.	Feb. 13
Feb. 23.	Long Island City, N. Y.	Feb. 13
Feb. 23.	San Francisco, Cal.	Feb. 20
Feb. 24.	Forest City, Ia.	Feb. 13
Feb. 24.	Pottsville, Pa.	Feb. 20
Feb. 25.	Morris, Ill.	Feb. 13
Feb. 25.	Springdale, Pa.	Feb. 13
Feb. 25.	Oklahoma City, Okla.	Feb. 13
Feb. 25.	Montreal, Que.	Feb. 20
Feb. 25.	Highland Park, Mich.	Feb. 20
Feb. 26.	Montreal, Que.	Feb. 13
Feb. 26.	Chicopee, Mass.	Feb. 20
Feb. 27.	Miles City, Mont.	Jan. 9
Feb. 27.	Danbury, Conn.	Feb. 20
Mar. 1.	Champion, O.	Jan. 9
Mar. 1.	Alliance, O.	Jan. 23
Mar. 1.	Charleston, S. C.	Feb. 13
Mar. 1.	Rome, N. Y.	Feb. 13
	Adv. Feb. 13, 20.	
Mar. 1.	Zanesville, O.	Feb. 20
Mar. 1.	Philadelphia, Pa.	Feb. 20
Mar. 2.	Columbus, O.	Feb. 13
Mar. 2.	Trenton, N. J.	Feb. 20
	Adv. Feb. 20.	
Mar. 2.	Fall River, Mass.	Feb. 20
Mar. 3.	Hudson, O.	Feb. 13
Mar. 4.	Newark, N. Y.	Feb. 13
Mar. 4.	Worthington, O.	Feb. 13
Mar. 4.	Washington C. H., O.	Feb. 20
Mar. 5.	Seattle, Wash.	Feb. 20
Mar. 5.	Prince Frederick, Md.	Feb. 20
Mar. 6.	Lawton, Okla.	Jan. 9
Mar. 6.	Prince Frederick, Md.	Feb. 13
Mar. 6.	Johnston, Ia.	Feb. 20
Mar. 8.	Atchison, Kan.	Feb. 13
Mar. 8.	Ft. H. G. Wright, N. Y.	Feb. 13
	Adv. Feb. 13, 20.	
Mar. 8.	Jamestown, N. D.	Feb. 20
Mar. 11.	Pittsburgh, Pa.	Feb. 6
	Adv. Feb. 6, 13.	
Mar. 15.	Fairmont, W. Va.	Feb. 6
Mar. 15.	Utica, N. Y.	Feb. 13
Mar. 15.	Greenfield, Mass.	Feb. 13
Mar. 15.	East St. Louis, Ill.	Feb. 13
Mar. 22.	Brattleboro, Vt.	Feb. 6
Mar. 22.	Greeley, Colo.	Feb. 20
	Adv. Feb. 20.	
Mar. 22.	Everett, Wash.	Feb. 20
Mar. 23.	Des Moines, Ia.	Feb. 20
Mar. 25.	Pendleton, Ore.	Feb. 6
Mar. 29.	Smyrna, Del.	Feb. 20

PRIVATE BUILDINGS.

Bids Close.		See Eng. Record.
Feb. 23.	Bancroft, Ia.	Feb. 13
Feb. 23.	Cincinnati, O.	Feb. 13
Feb. 25.	Detroit, Minn.	Jan. 30
Feb. 25.	New Kensington, Pa.	Feb. 20
Feb. 26.	Lakewood, O.	Feb. 13
Feb. 27.	Fairfax, Minn.	Feb. 20
Mar. 1.	Schenectady, N. Y.	Feb. 6
Mar. 1.	Milwaukee, Wis.	Feb. 13
Mar. 5.	Emporia, Kan.	Feb. 13
Mar. 10.	Lynn, Mass.	Feb. 20
Mar. 25.	Wilmington, Del.	Jan. 9

NEW INDUSTRIAL PLANTS.

Bids Close.		See Eng. Record.
Mar. 1.	Alameda, Cal.	Feb. 13

MISCELLANEOUS.

Bids Close.		See Eng. Record.
Feb. 23.	Elevator, Vancouver, B. C.	Feb. 20
Feb. 24.	Street Signs, Indianapolis, Ind.	Feb. 20
Feb. 24.	Elevator, Cedar Grove, N. J.	Feb. 20
Feb. 24.	Elevators, Port Arthur, Ont.	Feb. 20
Feb. 24.	Cement, Steel, etc., Sidney, Ia.	Feb. 20
Feb. 25.	Gas Franchise, Lake Charles, La.	Jan. 30
	Adv. Jan. 30 to Feb. 13.	
Feb. 25.	Elevator, Clarksdale, Miss.	Feb. 6
Feb. 25.	Wire Fence, Ft. Sam Houston, Tex.	Feb. 13
Feb. 25.	Sect. H, Dorchester Tunnel, Boston, Mass.	Feb. 13
	Adv. Feb. 13, 20.	
Feb. 25.	Elevators, Ft. William, Ont.	Feb. 20
Feb. 26.	Electric Railways, New York, N. Y.	Feb. 13
Feb. 26.	Cement, New York, N. Y.	Feb. 20
	Adv. Feb. 20.	
Feb. 26.	Garbage Equipment, Dayton, O.	Feb. 20
Feb. 27.	Steel Towers, Washington, D. C.	Jan. 9
Feb. 27.	Foundation for Radio Towers, Washington, D. C.	Jan. 30
Feb. 27.	Cranes, Norfolk, Va.	Feb. 6
Mar. 1.	Freight Lift, Kansas City, Kan.	Jan. 30
Mar. 3.	Cement, Seattle, Wash.	Feb. 20
Mar. 5.	Cement, Winnipeg, Man.	Feb. 20
Mar. 6.	Street Cleaning, Joliet, Ill.	Jan. 23
Mar. 10.	Engines and Compressor, Ketchikan, Alaska	Feb. 6
Mar. 11.	Elevators, Etc., Pittsburgh, Pa.	Feb. 6
Mar. 11.	Broken Stone, Philadelphia, Pa.	Feb. 20
	Adv. Feb. 20.	
Mar. 13.	Foundation for Radio Tower, Washington, D. C.	Jan. 30
———	R. R. Equipment, Siam	Feb. 6
	Adv. Feb. 6, 13.	
———	Land to be cleared, Norfolk, Va.	Feb. 13
	Adv. Feb. 13.	

★*Items marked thus give the names of parties awarded contracts.*

Barrett Specification Roofs

On the great Keokuk Power-house

THE mighty Mississippi has been dammed at Keokuk, Iowa. Under the enormous power-house pictured below the Father of Waters is now perforce spinning vast turbines with the power of 150,000 horses.

The entire enterprise is a triumph of modern engineering skill. Quality has been the first consideration in everything.

And the same engineering skill that harnessed the waters and constructed the foundation selected a Barrett Specification Roof as the building's crown.

How did it happen that a comparatively inexpensive roof was chosen for so monumental a building? Because the Barrett Specification Roof is the best at *any* price. It would have been used if it had cost *twice* as much.

Such a roof will probably last twenty years or more without a cent of expense for maintenance. Its unit cost, which is the thing that modern engineering science considers, is about a quarter of a cent per foot per year of service, a lower figure than that for any other type of roof.

The Barrett Specification prescribes with precision the materials to use and the method of application, thus furnishing a basis for competitive bidding that is fair to the conscientious contractor, and providing means for insuring correct workmanship and materials. Include it verbatim in your own building specifications and you are assured of the best roof at the lowest price.

Booklets on request.

Hydronon

The Damp-proofing Paint

Especially recommended for use above the ground level on the interior of stone, brick or concrete walls to exclude dampness. Has superior covering capacity and is vastly superior to other paints in its permanence and resistance to dampness. It penetrates into the pores of the brick so that an accidental abrasion does not break the waterproof seal. Furnishes satisfactory base for plaster and keeps the plaster from injury by dampness in the wall.

Tar-Rok Sub Floors

This construction provides the most suitable surface on which to bed plank (without the use of sleepers) where a wooden lower floor is desired in factory, machine shop, store house, etc., effecting a maximum of strength, rigidity and protection against dry rot, decay or fire, at a nominal cost. Booklet on request.

Special Note We advise incorporating in plans the full wording of The Barrett Specification, in order to avoid any misunderstanding. If any abbreviated form is desired, however, the following is suggested: ROOFING—Shall be a Barrett Specification Roof laid as directed in printed Specification, revised August 15, 1911, using the materials specified and subject to the inspection requirement.

BARRETT MANUFACTURING COMPANY

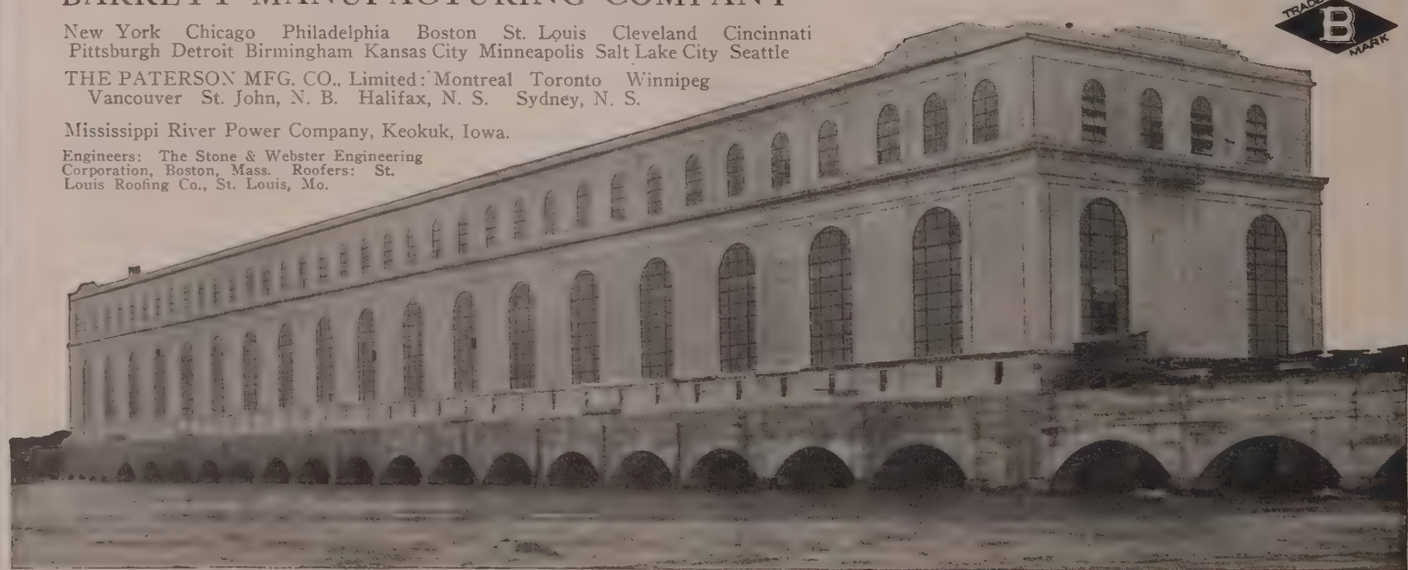
New York Chicago Philadelphia Boston St. Louis Cleveland Cincinnati Pittsburgh Detroit Birmingham Kansas City Minneapolis Salt Lake City Seattle

THE PATERSON MFG. CO., Limited: Montreal Toronto Winnipeg Vancouver St. John, N. B. Halifax, N. S. Sydney, N. S.

Mississippi River Power Company, Keokuk, Iowa.

Engineers: The Stone & Webster Engineering Corporation, Boston, Mass. Roofers: St. Louis Roofing Co., St. Louis, Mo.

TRADE B MARK



New Construction Activities

The domestic buying of steel products fell off noticeably last week, and the period of placing greatly increased orders by the railroads seems to have ended. The orders booked from railroads last week amounted to 22,000 tons of rail, 1575 cars and 1500 tons of bridge work. The automobile business is still a large buyer of steel products, as its export trade has been greatly increased by the war. The export trade in pig iron and steel products on the whole seems to be improving. The volume of private construction work being undertaken is still very small, but Federal Government work is fairly active, and the continued sale of county and city bonds gives assurance of considerable activity in highway and municipal construction. Some street railway work is in sight on the Pacific coast, and drainage work continues active in the Central and Southern States.

Buildings

Less building work was brought out during the week, only one large contract, that for the Cincinnati court house, being noted. The low bid on this court house was $1,763,000. A $300,000 contract for a loft building in Philadelphia has been awarded. Considerable school work is going forward, Boston having awarded a contract for a $271,000 industrial school and bids having been opened in Dayton on a $127,000 school building. Bids are desired in Philadelphia for a new public school and additions to two other schools. Bids are also desired for an $80,000 school building at Willoughby, Ohio. The commissioners of Fort Worth, Texas, have accepted plans for a $250,000 jail. Plans have been completed for a $185,000 high school at South Bethlehem, Pa. Plans have been prepared for a $150,000 building at Scranton, Pa., for a $500,000 apartment house at Washington, D. C., and for a $100,000 hotel at Williston, N. Dak. Bonds have sold at Savannah, Ga., for constructing a $200,000 auditorium. It is reported from Kansas City that a wholesale grocery company is planning to erect a $225,000 reinforced concrete building.

Bridges and Paving

It is reported that the Central Railroad of New Jersey has prepared plans for a new bridge over Newark Bay. Plans have also been completed for a $100,000 bridge over the Miami River at Cincinnati. Bids are desired on a bridge superstructure weighing 400 tons at Calgary, Alta. A number of smaller contracts ranging in cost from $25,000 to $50,000 are noted. The lowest bids opened on the Maryland state road work last week indicate that contracts for this work will total about $100,000. A contract for 7 mi. of street improvement to cost $137,000 has been let at Pueblo, Colo. Bids are desired at New Brighton, S. I., for considerable road material. Bids are desired at Winona, Minn., on more than $400,000 worth of state road work. It is said that contracts for paving which will total $350,000 will soon be let at Baton Rouge, La. Bids are desired on considerable road work at Tama, Iowa; Renton and Ephrata, Wash., and Redwood, Cal. It is reported that Spokane will spend about $400,000 during the year for street improvements. Bids are desired on state road work in Ohio which will cost $75,000. Contracts for 50 mi. of road will soon be let at Bremond, Texas. Canton, Ohio, has sold $130,000 in road bonds. At San Diego, Cal., bonds totaling $250,000 have been sold, and a bond issue of the same size has been voted at Middlesboro, Ky. Reading, Pa., contemplates spending $77,000 for street improvements.

Waterworks and Sewers

The contract for supplying Hawthorne, N. J., with over 2000 tons of cast-iron pipe was let at $20.23 per ton. The lowest bid on 4250 tons of cast-iron pipe received at Portland, Ore., was $29.48 per ton. Bids are desired on 600 tons of cast-iron pipe at Chillicothe, Mo. Contracts for constructing a waterworks and sewer system at Kensington, Md., have been awarded at a total of about $40,000. Bids have been opened on $60,000 worth of sewer work at Washington, D. C. Flint, Mich., has voted to issue $106,000 in sewer bonds. It is reported from St. Paul that plans are being prepared for a large 15-mi. sewer system. Kingston, N. C., desires bids on constructing 8 miles of 8 to 18-in. sewer.

Miscellaneous

A new street railway company has been incorporated at Sacramento, Cal., and the utilities commission has directed the city engineer of San Francisco to prepare plans for a $200,000 municipal railway line. Plans are complete for an inclined electric railway at Sausalito, Cal. It is reported from Alva, Okla., that a charter has been granted to a company which will construct 20 mi. of railroad near that point. A contract has been awarded at Cape Girardeau, Mo., involving nearly 10,000,000 cu. yd. of excavation for drainage work. The contract for extending an ore dock at Port Arthur, Ont., has been awarded at about $100,000. Bids have been opened on $240,000 worth of drainage work in the vicinity of Gonzales, La.

At Lewiston, Ill., and Bradentown, Fla., drainage contracts totaling $100,000 have been awarded. The contract for a ditch at Bemidji, Minn., was awarded at $63,000. All bids received Feb. 15, for a wharf at Richmond, Cal., have been rejected and new bids will be received March 1. It is expected that a $350,000 waterway project will be undertaken this summer at Tacoma, Wash. It is reported from Chico, Cal., that work will be started soon on a $400,000 irrigation ditch. The U. S. Engineer office at Duluth desired bids for a 4½-yd. steel hull dipper dredge. The Oregon State legislature has passed and the Governor signed a bill leasing rights in Lake County to a company which plans a $7,000,000 development for the mining and manufacture of fertilizer and commercial chemicals. The development, which, it is said, will begin at once, includes a large water-power plant and the construction of a $2,000,000 pipe line.

Contracting News

Of Special Interest to Engineers, Contractors, Builders and Manufacturers of Engineering and Building Supplies

WATERWORKS.

Items Arranged Geographically

Warren, Mass.—A bill is now before State Legislature calling for an appropriation of $75,000 for construction of water works.

Elmsford, N. Y.—J. E. Murray, Village Clk., writes question of constructing water works has not yet been submitted to the voters.

Madrid, N. Y.—The State Conservation Comn. reported to have approved plans for municipal water works, to cost about $22,000.

★Mt. Morris, N. Y.—Contracts reported awarded as follows, on Feb. 15, by the Municipal Board: To McCarthy & Wall, Mt. Morris, for digging ditches and laying pipe, at $14,114, and for furnishing the c.-i. pipe to U. S. Cast Iron Pipe Co., at $19,000. J. F. Witmer, Engrs., Buffalo.

New York, N. Y.—Bids desired by Bd. Water Supply, Municipal Bldg., until Mar. 23 for Contract 123, constructing 6 superstructures for Kensico influent, upper and lower effluent and screen chambers and Kensico siphon chambers, Mt. Pleasant, Westchester County, advertised in Engineering Record.

Atlantic City, N. J.—Bids desired until Mar. 11 (extension of date from Feb. 25) by Dept. Parks and Public Property (Harry Bacharach, Dir.), for an 18,000,000 gal. turbo centrifugal pump with appurtenances, for the Absecon Pumping Station, advertised in Engineering Record. L. Van Gilder, Engr., and Supt., Water Dept., City Hall.

Jersey City, N. J.—C. A. Van Keuren, Room 21, City Hall, Ch. Engr. Dept. of Streets and Public Improvements, writes that plans and specifications not yet completed for laying additional pipe line to carry water from Boonton to Jersey City. Work will be started this year.

Ford City, Pa.—Bids desired until Mar. 1 by D. O. Crouch, Boro. Secy., for pipe and fittings, to include 20-in. standard gate valve, a 20-in. copper expansion joint, an 18 x 24 in. c.-i. increaser, a 24-in. horizontal flanged check valve, 1 joint of standard c.-i. pipe, 24 in. x 12 ft. flange and spigot, 7 joints of standard c.-i. pipe, 24 x 12 ft. bell and spigot, etc.

Herndon, Pa.—Borough Council reported to be considering construction of water works.

Media, Pa.—J. W. Ledoux, 112 N. Broad St., Philadelphia, engaged by Town Council to prepare preliminary plans for an addition to the filtration plant, consisting of sedimentation basin and reservoir. Edw. Minton, Town Clk.

Punxsutawney, Pa.—Plans reported as being prepared by Thos. Peelor, of Indiana, Pa., for water works.

Frederick, Md.—Wm. H. Boardman, of Philadelphia, Pa., estimates cost at $15,000 to install 11,575 ft. of new water main from Fishing Creek. He has also urged construction of a storage reservoir, which, with other improvements to increase the water supply, will cost about $75,000.

Bridgeport, W. Va.—Bids desired until Mar. 1 by B. L. Fowler, Town Recorder, for $23,500 bonds, of which $15,500 will be issued for constructing a water works system and $8,000 for constructing a sewerage system.

Winnsboro, S. C.—The City Commission reported to have decided to construct water works and a sewer system.

Notasulga, Ala.—Bids reported desired until Mar. 2 by City Clerk for water works, including 80,000-gal. tank and tower, 80,000-gal. surface reservoir, about 3 miles c.-i. pipe line, power house, 500-gal. per minute pump, 25-hp gas engine, and boring deep well. Edgar B. Kay, Engr., Tuscaloosa, Ala.

Bellville, O.—It is reported that work will probably soon begin on construction of water works, to cost about $25,000.

★Canton, O.—Contract awarded by Bd. Pub. Safety (H. H. Heingartner, Secy.) for a triple combination motor pumping engine to Robinson Fire Apparatus Mfg. Co., St. Louis, Mo., at $8,970.

Columbus, O.—Bids desired until Mar. 4 by Director Pub. Service (Paul B. Kemper, Clk.), for furnishing and delivering 3,550 ¾, 1, 1½ and 2 in. lead and iron corporation cocks, 4,050 ¾, 1, 1½ and 2 in. lead and iron and 375 iron and iron curb cocks; also service boxes and lead pipe.

Port Clinton, O.—Council has passed ordinance to issue $10,000 bonds for rebuilding pumps at water works pumping station.

Salem, O.—Bids will be received within a few weeks for a reinforced concrete roof for water basin No. 2, size 72 x 102 ft. B. Morris French, City Engr.

Sandusky, O.—Council has passed ordinance providing for issue of $45,000 bonds, to be used for constructing intake pipe. E. C. Wagner, City Clk.

★Michigan City, Ind.—Contract has been awarded for laying 2400 ft. 30, 24 and 20-in. water mains to Nelson Bros. & Co., Muskegon, Mich., and for pipe, valves and fittings to J. B. Clow & Sons, Chicago; total cost $16,600.

Schoolcraft, Mich.—Bids reported desired until Mar. 1 by Smith & Boulay, Engrs., Nasby, Toledo, O., for constructing water works, about 4 miles, of 4, 6 and 8-in. iron pipe, in trench, from 5 to 5½ ft. deep; probably 3 wells, one 60,000-gal. tank on 100-ft. tower, etc. Estimated cost $22,000.

Aurora, Ill.—City Council reported to be considering ordinance providing for improvements to the water works, to cost about $75,000.

Chicago, Ill.—Bids desired until Mar. 12 by L. E. McGann, Dir. Dept. Pub. Wks., for furnishing and erecting 5 pumping engines at the Mayfair Pumping Station, advertised in Engineering Record.

Chicago, Ill.—Bids reported desired until Mar. 2 by L. E. McGann, Comr. Pub. Wks., for furnishing and delivering at various pumping stations compounded rubber pump valves.

Franklin Park, Ill.—Bids desired until Mar. 1 for artesian well through potsdam sandstone 16 in. diam. For further information address H. L. Emerson, Engr., 1118 Chamber of Commerce, Chicago.

Paris, Ill.—Bids desired by J. C. Riedel, City Clk., until Mar. 15, for the purchase of $90,000 bonds, to be used for constructing reservoir and filtration plant, from plans of Fleming & Babbitt, of Urbana.

Stronghurst, Ill.—Bids desired until Mar. 4 by Foster Lazear, Village Clk., for furnishing and erecting an elevated steel tank of 50,000 gals. capacity, 100 ft. from foundations to top of tank, pagoda roof, balcony, foundations and frost proof riser pipe. The W. S. Shields Co., Engrs., Hartford Bldg., Chicago.

Lyons, Neb.—Bids desired until Mar. 16 by M. L. Shumway, Village Clk., for furnishing material and constructing a power plant, pole line and lighting system for the pumping of water and for electric lights. Albert C. Arend, Consulting Engr., Brandies Bldg., Omaha.

★Items marked thus give the names of parties awarded contracts.

Chillicothe, Mo.—Bids desired until Mar. 9 by F. W. Cornue, City Aud., for furnishing f.o.b. cars, Chillicothe, 600 tons c. i. pipe, Class D, 10,000 lbs. special castings, Class D, bell and spigot, miscellaneous list of valves, including 10 6-in. valves, 22 fire hydrants with 6-in. hub and connections, also furnishing all labor and material and laying approximately 22,500 ft. 6 in. and 5,500 ft. 12 in. c. i. pipe, setting valves, hydrants, etc. Harper & Stiles, Consulting Engr., 911 Grand Ave., Temple, Kansas City.

Chillicothe, Mo.—W. L. Wanamaker, City Clk., writes citizens voted Feb. 15 to issue $135,000 bonds for purchase of present water works and improve same. Engineers, Harper & Stiles, of Kansas City.

Leslie, Ark.—City Council reported to have engaged J. B. McCrary Co., of Atlanta, Ga., to make surveys for water works and a sewer system.

Houston Heights, Tex.—The Houston Light & Water Co. is reported to have decided to lay 6 miles of high-pressure water mains in Houston Heights.

Mission, Tex.—R. M. Hunter, City Engr., writes question of constructing water works and electric light plant is under consideration, to be installed by a company or as a municipal plant, but have come to no definite conclusion as yet.

★**Seattle, Wash.** — Contract reported awarded Feb. 15 by Bd. Pub. Wks. to L. R. Ellis, Central Bldg., for laying water mains, etc., on 31st Ave. S., at $10,174.

Ashland, Ore.—Smith-Emery Co., San Francisco, Cal., reported to have been engaged to prepare plans for an auxiliary water system; cost about $175,000.

Eugene, Ore.—Bids desired about Mar. 15 by C. W. Geller, Secy. and Acting Gen. Supt. Water Dept., for constructing the proposed reservoir, to be of 2,500,000 gals. capacity, of reinforced concrete, with perpendicular walls, built in excavation; size 185 x 125 ft. Engineer, F. W. Dietrich, of Eugene.

★**Milwaukie, Ore.** — Contract reported awarded Giebish & Joplin, Portland, at $16,400 for laying 6 and 8 in. water mains to the Portland water system at Bull Run.

Portland, Ore.—Following are reported to be the bids recently opened by City Purchasing Agent for 4,250 tons of 30, 24, 12, 8 and 6-in. c. i. pipe and 50 tons of specials and fittings: (a) pipe per ton; (b) specials per lb.; (c) total: Oregon Iron & Steel Co., (a) $29.50; (b) 3 cts.; (c) $60,185; American Cast Iron Pipe Co., (a) $29.50; (b) 2¾ cts.; (c) $59,685; U. S. Cast Iron Pipe & Fdry. Co., (a) $29.48; (b) 3⅛ cts.; (c) $128,415; R. D. Wood & Co., (a) $31; (b) 3¼ cts.; (c) $137,480; Warren Fdry. & Mchry. Co., (a) $33; (b) 3⅜ cts.; Crane & Co., (a) $35; (b) 3 cts.; (c) $151,750; Smith & Watson, 2¾ cts.

San Francisco, Cal.—The Bd. of Supervisors has passed an ordinance calling an election Apr. 20 to vote on issuing $34,500,000 bonds for purchase of property of Spring Valley Water Co.

Montreal, Que.—Hering & Fuller, of New York, have recommended the installation of a mechanical filtration plant to supplement the sand plant.

SEWERAGE AND SEWAGE DISPOSAL.

Items Arranged Geographically

New Haven, Conn.—Bids desired until Mar. 1 at office of F. I. Ford, City Engr., for furnishing and delivering long leaf Georgia pine, cement, vitr. sewer pipe, sewer castings and granite catchbasin stone, required by Dept. of Pub. Wks., from Mar. 1, 1915, to Mar. 1, 1916.

★Contract has been awarded for constructing Edgewood Ave. sewer to the Robt. D. Daley Co. & Thos. F. Maher, Assoc., 6 Church St., at $6,890. H. J. Kellogg, Asst. City Engr.

Brooklyn, N. Y.—Bids were opened by L. H. Pounds, Boro. Pres., Feb. 17, for furnishing materials and constructing sewers in Dekalb Ave. and Skillman St., on a percentage basis: Victory Contr. Cor., 87 per cent; Lawrence Contr. Co., 94 per cent; Jas. H. Holmes, Inc., 97.7 per cent; Ward & Tully, Inc., 102.5 per cent. Work includes: 556 lin. ft. 48-in. sewer, 1041 lin. ft. 42-in., 12 manholes, 273 lin. ft. standpipe, 110 house connection drains reconnected, etc.

Bids desired until Mar. 17 by L. H. Pounds, Boro. Pres., for furnishing and installing the mechanical equipment of pumping station at Ave. U and Ocean Parkway; also sanitary and storm water sewers in Ave. U from Ocean Parkway to Gravesend Ave. and force main in Ave. U from Ocean Parkway to E. 1st St., together with an intermediate pumping station and appurtenances at the intersection of Ave. I and Ocean Parkway. Security, $5,500.

New York, N. Y.—Bids desired until Mar. 2 by Marcus M. Marks, Pres. Manhattan Boro., for constructing storm and sanitary sewers in portions of 218th St. requiring 5,784 lin. ft. 8 to 27 in. vitri. pipe, 8 receiving basins, 38 manholes for sanitary and combined sewers and 32 for storm sewers, 1 M. ft. timber for foundation, 10 M. ft. timber and planking for bracing and sheeting, etc.; security $20,000.

Oriskany, N. Y.—A. M. Scripture, of New Hartford, N. Y., has been engaged to prepare plans for sewer system and disposal plant.

★**Yonkers, N. Y.** — Contract reported awarded Feb. 15 to Edw. J. Brogan, at $13,325, for constructing sewer in Worth St., between Nepperhan River and Lockwood Ave.

Summit, N. J.—The question of constructing sewage disposal plant is under consideration, but nothing definite yet done. Alex. Blair, City Engr.

Ventnor City, N. J.—E. Steelman Royal, City Clk., writes bids were opened Feb. 15 by President of Council for 3460 lin. ft. intercepting sewers, installing centrifugal pumps for intercepting sewer and laying 8330 lin. ft. 14-in. c.-i. sewage force main and for sewage disposal works and outlet pipe, and following are totals of bids received:

Buildings only: T. H. Henry, Ventnor, City, $20,515; Suburban Eng. Co., New York, $23,500; Edw. T. Bader, Atlantic City, $22,090.

Entire contract: Atlantic Constr. & Supply Co., Atlantic City, $52,200; Kelley & McFeely Co., Camden, $55,276; Sutton & Corson, Ocean City, $54,000; Cantrell Constr. Co., Philadelphia, Pa., $59,075; John W. Heller, Newark, $64,500. (Contract not yet awarded.)

Carrick, Pa.—Bids desired until 8:30 p. m. Mar. 1 by Boro. Council for constructing a 20 and 24-in. sanitary sewer along Main St., from end of present sewer to Saw Mill Run. Wm. McClurg Donely, Boro. Engr., Mt. Oliver, P. O. Pittsburgh.

Washington, D. C.—Following are bids opened Feb. 15—(a) Hawes Run trunk sewer, (b) Nailors Run trunk sewer, (c) Burnt Bridge Run trunk sewer: Warren F. Brenizer Co., Washington, (a) $25,110, (b) $22,340, (c) $13,734; Martin & Miller, Caldwell, N. J., and Bruno Pizzimenti, Seneca Falls, N. Y. (associated), (a) $25,807, (b) $23,172, (c) $15,149; Geo. Hyman, Washington, (a) $30,435, (b) $25,665, (c) $14,125; Jas. Ferry & Sons, Inc., Baltimore, Md., (a) $33,202, (b) $29,880; Wm. F. Cush, Washington, (c) $17,094. Asa E. Phillips, Supt. of Sewers.

Bridgeport, W. Va.—See "Water Works."

Kinston, N. C.—Bids desired until Mar. 23 by City Council (Fred I. Sutton, Mayor) for street improvements and sewerage, including about 12,000 sq. yds. brick, asphalt, bitulithic or other pavt., 30,000 lin. ft. concrete curb and gutter and 20,000 sq. yds. sidewalk; also 8 miles of 8 to 18-in. pipe sewers, advertised in Engineering Record. Gilbert C. White, Engr., Charlotte, N. C.

Winnsboro, S. C.—See "Water Works."

Okolona, Miss.—J. H. Davis, Town Clk., writes bids will be received Mar. 19 for the purchase of $58,000 bonds to be used for construction of sewer system, from plans of Frank L. Wilcox, Syndicate Trust Bldg., St. Louis, Mo.

Newark, O.—Bids desired until Mar. 4 by W. C. Christian, Dir. Pub. Service, for constructing sewers in Jackson, Clarendon and Charles Sts., requiring approximately 6707 lin. ft. 24 to 6-in. tile sewer, etc.

Kent, O.—Bids desired by City Clerk until Mar. 8 for sewage disposal plant from plans of R. T. Bailey, Rockwell Bldg., Kent.

Ft. Wayne, Ind.—Bids desired by H. W. Becker, Clk. Bd. Pub. Wks., until Mar. 4 for 12,506 ft. 12, 15 and 18-in. pipe sewers, average depth 15.5 ft.; estimated cost $22,211.

Flint, Mich.—Citizens voted Feb. 17 to issue $106,726 bonds for storm and sanitary sewers. D. E. Newcombe, City Clk.

Galesburg, Ill.—The Illinois Rivers and Lakes Comn. reported to have ordered city to cease not later than July 1, 1918, to pollute waters of Cedar Fork River. This will necessitate construction of large trunk sewer and a sewage disposal plant.

Pontiac, Ill.—A new sewage disposal system will probably be installed in this city before Feb. 9, 1916.

★**Merrill, Wis.**—Contract reported awarded to Thornton Bros., of St. Paul, for construction of a main sewer at $32,000.

Mason City, Ia.—Bids desired until Mar. 10 by J. H. McEwen, City Clk., for approximately 23,000 ft. sub-main and lateral sewers constructed of vitr. pipe, 8, 10, 12 and 15 in.

St. Paul, Minn.—Local press reports state plans are being prepared for a Como-Langford sewer system, to extend with laterals over 15 miles, the main trunk to be 8 ft. diam. at its largest point.

Roundup, Mont.—Plans reported to have been approved for erection of a special improvement district to take care of the construction of lateral sewers throughout city; cost about $24,000.

Harrison, Ark.—Preliminary plans and report completed for sewer system; cost about $100,000; about $50,000 will be spent for construction at this time. Probable that an election will be called to vote bonds Apr. 1. Engineer, Albert C. Moore, Frisco Bldg., Joplin, Mo., Geo. Frew, Mayor.

Leslie, Ark.—See "Water Works."

Anacortes, Wash.—Bids desired until Mar. 3 by C. C. Temple, City Clk., for constructing a sewer system, to cost about $12,000.

Long Beach, Cal.—Bids reported desired until Mar. 3 by Bd. Pub. Wks. for constructing ocean outlet for main outfall sewer; will require about 1100 ft. 36 c.-i. pipe. Engineers, Olmsted & Gillelon, Hollingsworth Bldg., Los Angeles.

Brantford, Ont.—Bids reported desired until Mar. 4 by Chairman Bd. Works for furnishing sewer pipe for 1915. Cost about $15,000.

Toronto, Ont.—Bids desired until Mar. 2 by T. L. Church (Mayor), Chmn. Bd. Control, for constructing sewers in portions of Carlton and Dundas Sts. and Maclennan Ave.

BRIDGES.

Items Arranged Geographically

Newark, N. J.—Central R.R. Co. of New Jersey (Jos. O. Osgood, Ch. Engr., New York, N. Y.) has had plans prepared for bridge to be constructed over Newark Bay.

Albany, Pa.—Press reports state bids desired Mar. 5 by Philadelphia & Reading Ry. (Wm. Hunter, Ch. Engr., Philadelphia) for constructing a bridge for the S. & L. Branch of said road, 6 spans, steel and concrete; total length 169 ft., 18.6 ft. wide.

★**Pittsburgh, Pa.** — Contract for pile foundation of the Sylvan Ave. viaduct awarded to MacArthur Concrete Pile & Foundation Co., 11 Pine St., New York. Dravo Contr. Co., Pittsburgh, Contractors.

Wagontown, Pa.—Press reports state bids desired Mar. 5 by Philadelphia & Reading Ry. (Wm. Hunter, Ch. Engr., Philadelphia) for constructing a bridge for the Wilmington & Northern Branch of said road, 6 spans, concrete and steel; total length 110 ft., 18.6 ft. wide.

Washington, D. C.—Following are bids opened Feb. 17 by Col. H. C. Newcomer, Corps Engrs., U. S. A., Washington, D. C., for substitution of through span for deck span in Pennsylvania Ave. bridge across Anacostia River: Penn Bridge Co., Beaver Falls, Pa., $6,740; M. F. Comer & Co., Washington, D. C., $11,900; Phoenix Bridge Co., Philadelphia, Pa., $9,455.

Cincinnati, O.—Plans have been completed by County Engineer for constructing 720 ft. bridge over Miami River at Wood St.; estimated cost concrete structure $100,000.

Lancaster, O.—Bids reported desired until Mar. 4 by County Comrs. for furnishing material and constructing superstructure of Mike Vought Bridge over Hocking River, Greenfield Township, 56 ft. clear span, 16 ft. clear roadway, with creosoted wood block floors; also superstructure for Spangler Bridge, over Sycamore Creek, Violet Township, 50 ft. clear span, 13 ft. clear roadway, with creosoted wood block floor. Geo. J. Gearhart, Co. Aud.

Lima, O.—Local press reports state bids will be opened Mar. 15 by Bd. Public Service for constructing Pine St. Bridge, a concrete structure, to cost about $40,000.

Toledo, O.—About $97,674 bridge bonds have been sold by County Comrs.

Broughton, Ill.—Bids desired until Mar. 15 by County Comrs., McLeansboro, for constructing Broughton Bridge, a 100-ft. steel span, 16-ft. roadway, reinforced concrete abutments, in Mayberry Township, near Broughton; estimated cost $5,600. Gregg Garrison, Co. Supt. Highways, Garrison.

Mason City, Ia.—Bids reported desired until Mar. 2 by County Auditor for constructing 20 bridges, two of steel and 18 of concrete; total cost is estimated at $25,000 R. E. Robertson, County Engr.

Bids reported desired Mar. 1 by Geo. E. Frost, Co. Aud., for 2,000 to 4,000 ft. 12 in. and 4,000 to 10,000 ft. 15 in. corrugated culverts. R. E. Robertson, Co. Engr.

Owatonna, Minn.—Bids reported desired until Mar. 9 by M. J. Parcher, Co. Aud., for constructing state bridge in Summit Township, superstructure, three 14-ft. spans, 18-ft. roadway, reinforced concrete floor and abutments.

Long Prairie, Minn.—Bids desired until Mar. 1 by E. M. Berg, Co. Aud., for building state bridges Nos. 1604, superstructure two 60 ft. spans, and 1656, superstructure 20 ft. span concrete floor on concrete abutments.

★**Malta, Mont.** — Contract has been awarded by Dept. of Interior, at Washington, D. C., to Minneapolis Bridge Co., Minneapolis, Minn., for furnishing and installing highway and pipe bridge at St. Mary River crossing, St. Mary storage canal, Milk River project, at $8,824.

Kansas City, Mo.—Plans have been approved by Park Bd. for steel span bridge with frame approaches over Brush Creek to connect with extension of Benton Boule. Swope Parkway; cost $40,000.

Joplin, Mo.—Construction of viaduct at N. Main St., to cost $23,500, is contemplated.

★**Houston, Tex.**—Contract for constructing concrete bridge at Milan St. has been awarded by City Council to J. H. Richardson Co., at $37,397.

Rockport, Tex.—Contract is about to be let by county for constructing bridge over Puerto Bay; cost about $25,000.

Bellingham, Wash.—Bids reported desired about Mar. 16 by County Comrs. for constructing a 360-ft. steel bridge on reinforced concrete piers, near this city. C. E. Fowler, Engr., Central Bldg., Seattle. C. M. Adams, Co. Engr.

Everett, Wash.—Bids desired until Mar. 15 by Mae Weatherbee, Co. Aud., for constructing a 361 ft. trestle, also until Mar. 22 for constructing a 255 ft. trestle.

Stayton, Ore.—Plans are being considered by West Stayton Power & Ry. Co. to begin work in spring on electric railway between Salem and East Stayton. E. O. Stafter is interested.

Colusa, Cal.—Bids reported desired until Mar. 2 by County Super. (J. W. Kaerth, Engr.,) for constructing 35 concrete bridges, also same time for constructing a steel and concrete bridge at Sycamore Slough.

Ogden, Utah.—City Comrs. have granted a franchise to Jos. Scowcroft & Sons Co. to erect steel viaduct across Wall Ave. near 23d St.

Calgary, Alta.—Bids desired until Mar. 12 (extension of date from Feb. 12) by City Commissioners for furnishing and erecting steel superstructure for Louise Bridge at 9th W. St.; will consist of 4 Pratt truss spans each 135 ft. long; approximate weight 400 tons. J. M. Miller, City Clk.

PAVING AND ROADS.

Items Arranged Geographically

Massachusetts—Bids desired until Mar. 2 by Massachusetts Highway Comn., 15 Ashburton Pl., Boston (F. I. Bieler, Secy.), for macadam road in Charlton, about 4,200 ft. and in Swansea, about 6,000 ft.

Springfield, Mass.—Bids desired until Mar. 4 by Bd. Supervisors of Dept. of Streets and Engineering (F. H. Clark, Supt.) at the office of the City Clerk, for furnishing trap rock, sidewalk, crosswalk, sewer and well bricks, castings, curbing, vitr. clay pipe, granite blocks and wood block paving, to the said Department.

Woonsocket, R. I.—Bids desired until Mar. 11 by Chas. D. Southwick, Chmn. Com. on Streets and Bridges, for paving a portion of Pond St., advertised in Engineering Record. Frank H. Mills, City Engr.

Buffalo, N. Y.—Bids desired until Mar. 4 by Dept. Pub. Wks. (F. G. Ward, Comr.) for paving Hazel Pl., Alsace Ave., Garden and Halbert Sts. and repaving Moselle St.

About 100 miles of roads are to be constructed in Erie County according to reports of Good Roads Com.

New Brighton, S. I., N. Y.—Bids desired until Mar. 2 by Chas. J. McCormack, Boro. Pres., for furnishing 100,000 gals. liquid asphalt for road surfacing; 212,500 gals. road oil (coal tar) for road surfacing; 2,565 tons ¾ in. broken stone and 150 tons screenings in Stone Dist. No. 1 and 2,835 tons in Stone Dist. No. 2; and 100 tons 1½-in. broken stone and 4,600 tons ¾-in. broken stone and 100 tons screenings in Stone Dist. No. 3.

New York, N. Y.—Bids desired until Mar. 5 (readvertisement) by Marcus M. Marks, Pres. Manhattan Boro., for regulating and regrading W. 155th St., from Bway. to Riverside Drive, together with widening of Riverside Drive on the easterly side of its junction with W. 155th St., 7000 sq. ft. concrete sidewalk, Class A, 2700 cu. yds. filling, 2940 cu. yds. earth excav., 16,000 lbs. steel reinforcement bars, etc.; security $10,000.

Oneonta, N. Y.—Frank M. Gurney, City Engr., writes bids desired Mar. 15 for about 13,700 sq. yds. bituminous macadam pavement.

★**Syracuse, N. Y.**—Contract for paving Catherine St. has been let by Bd. Contract and Supply to Guy B. Dickinson, Kirk Bldg., at $11,846.

Atlantic Highlands, N. J.—Bids wanted for 2 cars good road oil applied on streets. Address Boro. of Atlantic Highlands.

Moorestown, N. J.—Bids reported desired until Mar. 8 for constructing 1.1 miles macadam road, 16 ft. wide, between Hartford and Fairview. For further information address The Chester Township Comn., Moorestown, or Earl Thompson, Engr., Camden.

Newark, N. J.—Bids desired until Mar. 4 by Bd. Street and Water Comrs. (Morris R. Sherred, Ch. Engr.) for repaving Orange St., requiring 7000 sq. yds. oblong granite block pavement, and 7000 sq. yds. 4-in. wood block pavement on a 6-in. concrete foundation; 2200 sq. yds. 4-in. wood block pavement and 2200 sq. yds. oblong granite block pavement, on old concrete foundation, built up with new concrete to raise concrete foundation to increased height, made necessary by use of 5-in. granite blocks instead of old 8-in. blocks, and 4-in. wood blocks instead of old 8-in. granite blocks; 5700 sq. ft. artificial stone walk, 5 in. thick, etc.

Roselle Park, N. J.—Bids desired until Mar. 5 by Mayor and Boro. Council for concrete pavements and appurtenances. W. H. Luster, Boro. Engr., 286 N. Broad St., Elizabeth.

★Items marked thus give the names of parties awarded contracts.

Bellevernon, Pa.—Bids desired until Mar. 4 by H. N. Beazell, Clk. Council. Bellevernon, for improving Market St., requiring approximately 4000 sq. yds. paving, 10,000 sq. ft. concrete sidewalks, 4000 sq. yds. concrete curb and gutter, etc. Douglas & McKnight, Engrs., Union Bank Bldg., Pittsburgh.

East Carnegie, Pa.—Bids desired until Mar. 3 for paving and curbing John St. and Ambrose Ave., East Carnegie. For further information address Andrews & Southard, Engrs., Curry Bldg., Pittsburgh.

Philadelphia, Pa.—Bids desired until Mar. 16 by M. L. Cooke, Dir. Dept. Pub. Wks., for improving the Parkway, from 19th to 22d Sts., advertised in Engineering Record. Estimated quantities: 30,000 cu. yds. grading, 33,000 sq. yds. asphalt paving, 3400 sq. yds. vitr. block paving, 3500 sq. yds. granite block paving, 11,800 lin. ft. concrete curb, 14,500 sq. yds. concrete footways, 28,200 sq. yds. topsoil, 2500 lin. ft. water pipe and 10,200 lin. ft. electrical conduits.

Reading, Pa.—City Council contemplates spending $77,000 for street improvements.

Sharon, Pa.—Bids desired until Mar. 1 at office of Claude B. Lartz, Boro. Secy., for furnishing 750,000 or more paving blocks; also 50,000 or more hill side paving block or brick.

Steelton, Pa.—Bids desired until Mar. 15 by Town Council for sub-grading, paving and curbing S. 3d, Highland and Conestoga Sts., advertised in Engineering Record. Chas. P. Feidt, Boro. Secy.

Baltimore, Md.—Bids reported desired until Mar. 3 by Bd. of Awards, care of City Register, for constructing cement footways around city property, in all about 64,000 sq. ft.

Maryland.—Following are lowest bids opened Feb. 16 by State Roads Comn., Baltimore (Wm. L. Marcy, Secy.), for constructing 5 sections of State highway, aggregating 12.52 miles in length, as follows:

Contr. A-B-6: Anne Arundel Co., Annapolis Boule., concrete road about 3.76 miles, Fisher & Carozzo, Baltimore, $43,955.

Contr. A-11. Allegany Co., National Pike, resurfacing, about 1.74 miles in length, Thos. Bennett & Hunter, Westminster, $11,715.

Contr. Bc-18A: Baltimore City, Cathedral St., sheet asphalt, about .47 mile in length, American Paving & Contr. Co., Baltimore, $20,573.

Contr. Ch. 11: Charles Co., La Plata to near Ripley, 4 in. gravel surfacing, about 5.70 miles, Thos. Mullan, Baltimore, rolled granite, $22,855; or Tuck Constr. Co., Roanoke, Va., gravel, $21,496.

Contr. G-8: Garrett Co., resurfacing road through Grantsville, about .85 mile in length, Fogel & Co., Hollidaysburg, $8,477.

Bristol, Va.-Tenn.—It is proposed to pave with asphalt, brick or concrete, Winston Ave. and adjacent streets, about 15,000 sq. yds.

Marion, Va.—Bids desired until Mar. 1 at County Clerk's office, Marion, for grading about 20 miles of road in this county.

Richmond, Va.—Bids reported desired until Mar. 1 by G. P. Coleman, State Highway Comr., Richmond, for improving following roads in Henrico County: Grading, draining and gravel surface on 9 Mile Road, 2.3 miles; Williamsburg Road, 5 miles; waterbound macadam surface with surface treatment on Osbourne Township, 1.69 miles; alternate bids on bituminous macadam surface and bituminous concrete surface on Cary St. Road, 1.61 miles.

Parkersburg, W. Va.—Frank Good, City Clk., writes bids desired Mar. 11 for purchase of $200,000 bonds for street improvements.

Kinston, N. C.—See "Sewerage and Sewage Disposal."

Atlanta, Ga.—About $65,000 is to be spent for street improvements.

Brooksville, Fla.—Bids desired until Mar. 6 by Bd. Co. Comrs., at Brooksville, for constructing hard surfaced highways in the county; also same time and place for $250,000 funding and highway bonds. M. H. Snow, Co. Clk.

Clearwater, Fla.—The Town of Clearwater postponed the opening of bids, to have been Feb. 17, on paving Ft. Harrison and Drew Aves., about 20,000 sq. yds., until a later date.

Baton Rouge, La.—Commission Council is about to let contracts for constructing about 16 miles streets; cost about $350,000.

★**Mansfield, La.**—Contract awarded Feb. 15 for 4½ miles concrete sidewalk to G. E. Soderstrom, Charleston, Mo., at 15 cts. per ft. Jos. E. Elam, Mayor.

Louisville, Ky.—Bids desired until Mar. 1 by Bd. Pub. Wks. (Roger G. McGrath, Secy.) for Onyx, Sutcliffe and Bellaire Aves., 33d, 35th, 36th and a number of other streets.

Bids desired until Mar. 2 same place as above for paving with vitr. brick Green St.

★Contracts for paving awarded by Bd. Wks., as follows: 5th, 20th, 21st and 24th Sts. with bituminous concrete to L. R. Figg Co., Louisville, at $32,000.

Middlesboro, Ky.—Citizens of Bell County voted $250,000 bonds for road improvements.

Newark, O.—Bids desired until Mar. 4 by W. C. Christian, Dir. Pub. Service, for paving N. 11th St., requiring approximately 3590 sq. yds. complete brick pavement, 2180 lin. ft. artificial stone combined curb and gutter, etc.

Cleveland, O.—Bids reported desired until Mar. 3 by Comr. Purchases and Supplies for grading, draining, curbing and paving with brick, portions of various streets.

Mt. Gilead, O.—Bids desired until Mar. 5 by County Comrs. for furnishing material and macadamizing the Blackbird Rd., Gilead and Harmony Townships, about 7 miles in length. C. O. Higgins, Co. Aud.

New Boston, O.—The City Council voted $102,000 bonds for street improvements.

Ohio.—Bids desired until Mar. 12 by Jas. R. Marker, State Highway Comr., Columbus, for improvement in Erie County-Sect. K of the Cleveland-Sandusky Road, I. C. H. No. 3, in Vermilion Township, including constructing bridges and culverts, grading roadway and paving with concrete about 22,814 ft.; estimated cost $74,155.

Paulding, O.—All bids rejected as opened Feb. 16 at office of Edw. McGaharan, Co. Aud., for grading, draining, culverting, macadamizing, rolling and flooding the following pikes: Arena Pike, Paulding Township, 16,132 ft. in length; Burroughs Pike, Paulding and Crane Townships, 10,836 ft.; Coplin Pike, Harrison and Carrvall Townships, 17,900 ft.; Kraft Pike, Paulding and Harrison Townships, 15,918 ft.; Stanley Pike, Washington Township, 10,775 ft. New bids will be called for on revised plans.

Salem, O.—Bids will be received within a few weeks for 21,000 sq. yds. brick repaving on McKinley Ave. B. Morris French, City Engr.

Sandusky, O.—Bids desired until Mar. 1 by John J. Molter, Dir. Public Service, for furnishing the necessary oil or tar protection to treat certain unpaved streets.

★**Toledo, O.** — Contract awarded by County Comrs. Feb. 16 for macadamizing Lockwood Ave. to M. K. Hammin, Valentine Bldg., Toledo. Chas. J. Sauzenbacher, Co. Aud.

★Contracts for paving awarded by Bd. Control as follows: Moore St., Kimball and Highland Ave. to H. P. Streicher & Co., Toledo, at $22,487 and $11,338; South and Hollyrood Aves. to Harris & Tansey, at $21,400.

★**Troy, O.**—Contract awarded by Bd. Pub. Service (O. S. Yount, Clk.) Feb. 17 for constructing sidewalks and paving with macadam Elm St. to Yount & Jackson, Dayton, at $1.85. Other bids: Hennessy Bros., Troy, at $1.87; Shoup & Murray, Dayton, $1.92. Total cost said to be about $15,000.

Indiana.—Bids desired by County Commissioners for constructing roads as follows:

Until Mar. 2:

Bedford, 10 gravel or macadamized roads in Shawswick and Marion Townships. E. W. Edwards, Co. Aud.

Delphi, a macadam road in Washington Township. M. G. Haun, Co. Aud.

Until Mar. 12:

Crown Point, 5 gravel roads in North and Calumet Townships. E. Simon, Co. Aud.

★**New Albany, Ind.**—Contract for constructing State Run Rd. extending from Silver St. to Chestertown Rd., distance 1½ mile, has been awarded by Bd. County Comrs. to W. F. Woodruff, Louisville, Ky., at $10,027.

Plymouth, Ind.—Bids reported desired until Mar. 15 by Geo. A. Mays, County Treas., for $91,500 highway bonds.

★**Benton Harbor, Mich.**—Contract was awarded Feb. 15 for paving Columbus Ave. with brick on 5-in. concrete foundation, to Harry VanderVeen, of Benton Harbor; cost reported to be about $17,000. B. Spaulding, City Clk.

★**Birmingham, Mich.**—Contract for paving Maple and Woodward Aves., in Birmingham, was awarded Feb. 13 to the Andrews Asphalt Paving Co., of Hamilton, O., on asphaltic concrete; the contract price on Maple Ave. is $23,485, and on Woodward Ave., $46,412. The railroad strip is to be built of brick and the contract price amounts to $42,046. Smith & Boulay Co., Engrs., Nasby Bldg., Toledo.

Chicago, Ill.—Bids reported desired until Mar. 1 by L. E. McGann, Comr. Pub. Service, for 4000 yds. granite block paving, sand, flux and fuel oil and paving pitch.

Moline, Ill.—The Bd. of Local Improv. has decided to recommend an ordinance to Council for paving 19th Ave. with asphalt from 1st to 16th Sts., 24,700 sq. yds., concrete base and curb. Lyle Payton, City Engr.

★**Rock Island, Ill.**—Contracts for paving awarded by Bd. Local Improvements as follows: Constructing sidewalks, to W. F. Evans, at $11,540; 28th St. with brick and Highland Park Ave., to Independent Constr. Co., Davenport, Ia., at $2.22 per sq. yd.; total cost about $28,000; and 18th Ave. with brick, to Tri-City Constr. Co., at $2.22 per sq. yd., or at total about $25,000.

Springfield, Ill.—Governor E. F. Dunne, in his message to the General Assembly, recommends highway improvements and construction of 15,000 miles of roads; he also advocates further employment of convicts on this work.

Beloit, Wis.—Plans and specifications for about 100,000 sq. yds. of paving are being prepared, and will be submitted to Council about Mar. 1. G. E. Heebink, City Engr.

Mt. Horeb, Wis.—Bids reported desired until Mar. 1 for 8780 yds. concrete paving. Wm. D. Kichoffer, Engr., Madison.

Superior, Wis.—Bids desired until Mar. 4 by Bd. Pub. Wks. (W. R. Russell, Chmn.) for grading or regrading, paving or repaving, Weeks Ave., from N. 4th St. to Belknap Ave. Bids desired on reinforced concrete, sheet asphalt, brick and asphaltic concrete and keeping same in repair for a period of 5 years.

Watertown, Wis.—Bids reported desired until Mar. 9 for 5150 yds. reinforced concrete pavement and 3735 ft. combined curb and gutter. Arnold Kraeft, City Engr.

Wausau, Wis.—City Council contemplates paving with brick Forest St.; cost $25,000.

★**Carroll, Ia.**—Contract for 30,525 sq. yds. asphalt pavement has been awarded by City Council to A. Jaicks Co., Kansas City, Mo., at $58,702.

Clinton, Ia.—Bids reported desired until Mar. 9 by Frank W. Leedham, City Clk., for grading, draining and paving with 1 course concrete, various alleys, in all about 3676 sq. yds. paving.

Tama, Ia.—Bids desired until Mar. 3 by City Clerk for 37,000 sq. yds. brick paving. Aetna Eng. Bureau, Engrs., Chicago, Ill.

St. Paul, Minn.—It has been decided to pave Dayton Ave. from Victoria St. to Lexington Ave. with sheet asphalt.

Bids desired until Mar. 1 by Aug. Hohenstein, Purchasing Agent, for 45,000 sandstone paving blocks, 24 sandstone catch basins, 110,000 No. 1 vitr. small paving brick, 8,000 No. 1 vitr. large paving brick, 200,000 No. 2 vitr. paving blocks, 60,000 cement paving blocks, and 235,000 sewer brick; 41 cars crushed granite, 60 tons limestone dust for asphalt mixture, etc.; 800 tons trinidad asphalt, 17 cars asphaltum oil, 100 tons radium, etc.; grading and improving Ivan Way, Glen Terrace, Barrette, Ivy and other streets.

Winona, Minn.—Bids reported desired until Mar. 23 by C. W. Anding, County Aud., for constructing state rural highways in Winona County, as follows: No. 85, cost $162,540; No. 86, $109,504; No. 87, $48,678; No. 88, $32,577; No. 89, $17,844; No. 90, $17,164; No. 91, $50,725; No. 95, $23,546; No. 96, $46,777. Work includes clearing, grubbing, excavation, turnpiking, macadam, brick and concrete work, etc.

Omaha, Neb.—Bids are reported desired until Mar. 2 by City Clerk, for curbing and paving with asphalt, stone asphaltic concrete, etc., creosoted block, portions of 8 streets.

Butte, Mont.—Bids will be received about March 10 for paving with brick Arizona St.

Missoula, Mont.—Bids desired until Mar. 10 by L. E. Harris, City Clk., for furnishing material and constructing a pavement of vitr. brick, creosoted wood blocks, bitulithic, asphaltic concrete, asphaltic macadam, "Specifications A," or asphaltic macadam, "Specifications B," together with all accessories, in Special Improvement Dist. No. 33, Stevens St. Total area to be approximately 10,305 sq. yds. H. E. Rolfe, City Engr.

St. Louis, Mo.—Bids desired until Mar. 5 by Bd. Pub. Service (Wm. T. Findly, Secy.) for grading, curbing and paving portions of Fyler, Scanlan and Ivanhoe Aves., and 2 alleys, requiring 28,133 sq. yds. brick pavement, 160 cu. yds. macadam, 14,303 lin. ft. granite curb and 788 lin. ft. marginal curb, etc.

Bremond, Tex.—Bids desired until Mar. 5 by S. M. Peters, Secy., Bd. Road Comrs., Bremond, for constructing a system of roads and bridges in Bremond Road Dist., No. 5, Robertson County. The contract includes grading, and constructing about 50 miles of earth, sand, clay and gravel roads and building necessary culverts and bridges. Plans may be obtained from R. B. Pearce, Bremond.

Corsicana, Tex.—City Council voted to pave with gravel concrete macadam 4th Ave.

Cuero, Tex.—Citizens of Hochheim Dist. voted $50,000 bonds for constructing county roads.

Ft. Worth, Tex.—Plans and specifications have been prepared by city for 3½ miles pavements, cost $30,000.

Colfax, Wash.—Surveys have been completed by J. M. M. Gaw, County Engineer, for constructing 4½ miles permanent highway southeast of Colfax; cost $35,000.

Davenport, Wash.—Bids reported desired until Mar. 2 by Co. Comrs. for constructing 12.53 miles of spread gravel macadam road.

Ephrata, Wash.—Bids will be received about Mar. 1st by County Comns. for constructing a $12,000 concrete highway; and on April 1st for a $25,000 concrete highway. E. H. Stradling, Co. Engr.

Everett, Wash.—Bids desired until Mar. 15 by Mae Weatherbee, Co. Aud., for constructing 2½ miles of Beverly Park Highway to cost $16,000.

Kalama, Wash.—Bids desired until Mar. 3 by H. A. Pryde, City Clk., for grading, filling and paving a number of streets.

Port Townsend, Wash.—Bids desired until Mar. 3 by Co. Coms. for constructing about 1½ miles of highway No. 24 to cost about $15,000.

Shelton, Wash.—Plans will be completed by A. L. Ward, County Engineer, for constructing one mile concrete road from Shelton north, at cost of about $15,000, and for constructing Road 14, portion Olympic Highway; cost about $20,000.

Tacoma, Wash.—This city and Pierce Country have formally agreed to pave Pacific Ave. from 64th St. to 96th St., this year. This is the main road to Mt. Rainer National Park, the portion beyond 96th St. being already paved with concrete 20 miles. W. C. Raleigh, City Engr.

Portland, Ore.—Contract about to be let by City Comn. for paving with macadam E. 76th St.; cost $10,289.

Lowest bid opened for paving E. 23d St. submitted by Giebisch & Joplin, concrete $11,943, asphaltic concrete $12,257 and gravel bitulithic $13,324.

El Monte, Cal.—Bids desired until Mar. 5 by I. Worth Everett, City Clk., for approximately 4000 lin. ft. macadamizing. I. Worth Everett, City Clk.; also 1300 lin. ft. curb. R. L. Wood, City Engr.

Fullerton, Cal.—Citizens voted $36,000 bonds for paving Brea Rd.

Redwood, Cal.—Bids desired until Mar. 15 by County Bd. of Supervisors for constructing 6 miles macadam pavement on Colma to Half Moon Bay Rd., 5 miles macadam pavement on Half Moon Bay Rd. to Pescadero Rd., 2 miles oil macadam pavement on Belmont Rd. to Crystal Springs Rd., and 2.5 miles gravel road near La Honda.

STREET CLEANING AND GARBAGE DISPOSAL.

Items Arranged Geographically

Reading, Pa.—It is reported that $12,000 will be spent by city to double capacity of Millmont garbage plant.

Wilmington, Del.—Bids including plans and specifications desired until Apr. 1 by Bd. Health (J. Austin Ellison, Secy.), for disposal of garbage for a term of 9 years beginning June 1, 1915, advertised in Engineering Record.

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Items Arranged Geographically

Dredging—Boston, Mass.—Following are 3 lowest bids opened Feb. 18 by U. S. Engineer, Boston, for dredging 280,000 cu. yds. of material in Chelsea Creek, Boston Harbor (price given per cu. yd.): Morris & Cumming Dredging Co., 14 State St., New York, 12.6 cts.; Coastwise Dredging Co., Norfolk, Va., 15.25 cts.; John H. Gerrish, 101 Tremont St., Boston, 16.6 cts.

Dredging—Hartford, Conn.—Bids desired until Mar. 18 by Maj. G. B. Pillsbury, Corps Engrs., U. S. A., New London, for dredging in Connecticut River below Hartford.

Gate House for Canal—Buffalo, N. Y.—Col. J. G. Warren, Corps Engrs., U. S. A., Federal Bldg., Buffalo, writes no bids were called for to be opened Feb. 20 (as recently reported) for constructing 6 gate houses and a storehouse at U. S. Ship Canal Lock, Black Rock Harbor, Buffalo. Plans are being prepared for these buildings, but it will be some time before bids will be received. Estimated cost said to be $50,000.

★**Dredging—New York, N. Y.**—Contract reported awarded Feb. 11 by Col. W. M. Black, Corps Engrs., U. S. A., First Dist., Army Bldg., New York, for dredging in Harlem River, to R. G. Packard Co., of Bayonne, N. J., at 22.8 cts. per cu. yd., total $26,220. Next 2 lowest bids: Morris & Cumings Dredging Co., New York, $27,312; Coastwise Dredging Co., Norfolk, Va., $30,935.

Excavator—Atlantic City, N. J.—Bids desired until Mar. 11 by Dept. Parks and Public Property (Harry Bacharach, Dir.) for constructing one drag line or slack line excavator, capable of excavating 800 cu. yds. per day, for use at the Doughty Pond, advertised in Engineering Record. L. Van Gilder, Engr. and Supt. Water Dept., City Hall.

Ditches—Jersey City, N. J.—The Mosquito Exterminating Comn., of Hudson County, at Jersey City, desires bids Mar. 4 for constructing about 100,000 ft. drainage ditches in the salt marsh meadows of this county at various points, beginning at Bergen County line on the north and extending along either side of the Hackensack River to the Kill Von Kull.

Dike—Newark, N. J.—The Essex County Mosquito Extermination Comn., 790 Broad St., Newark, desires bids Mar. 15 for constructing a mile or more of dike on Newark Meadows.

★**Pier Improvement—Philadelphia, Pa.**—Contract awarded by Geo. W. Morris, Dir. Dept. Wharves, Docks and Ferries, 555 Bourse Bldg., for work on Piers 38 and 40, etc., as follows: Skylights on Piers 38 and 40, Delaware River, to David Lupton's Sons Co., Allegheny Ave. and Tulip St., Philadelphia, $5,057; roofing said piers, Harry S. Ehret, 1098 Drexel Bldg., $6,442;

★*Items marked thus give the names of parties awarded contracts.*

cargo doors for superstructure of said piers, J. E. Ogden Co., 147 Cedar St., New York, $36,464, and cargo chutes and hatchway railings at said piers, W. W. Lindsay, 902 Harrison Bldg., Philadelphia, $4,300.

Pier Work—Philadelphia, Pa.—Bids desired until Mar. 8 by Dept. of Wharves, Docks and Ferries (Geo. W. Norris, Dir.) for the following:
Schedule "A"—Package elevators at Piers 38 and 40 South.
Schedule "B"—Platform elevators for Southwark Piers, Delaware River.
Schedule "C"—Plumbing at Southwark Piers, Delaware River.
Schedule "D"—Heating at Southwark Piers, Delaware River.
Schedule "E"—Construction of temporary bulkhead, Schuylkill River.

Drainage—New Bern, N. C.—Geo. D. Dail, Secy. Drainage Comn., writes that bids will probably be received in March for the proposed drainage system, to include open and tile drains and 2 tide gates; cost about $20,000. Engineer, R. R. Eagle, of New Bern.

Flood Protection Bonds—Augusta, Ga.—Bids desired until Mar. 2 by Finance Com. of the City Council (Wm. Martin, Chmn.) for $250,000 flood protection bonds.

★**Drainage—Bradentown, Fla.**—Contract reported awarded to Chas. F. Hill, of Palmetto, for drainage work in Manatee County at $100,000.

★**Drainage—Jacksonville, Fla.** — Local press reports state that a contract has been signed by the Trustees of the Internal Improvement Fund and the Furst-Clark Constr. Co., whereby the company will begin within a short time work on the main drainage canal in the draining of the Everglades. This canal, known as the St. Lucie canal, will be dredged from north section of Lake Okeechobee to St. Lucie River, a distance of 24½ miles; it will be 200 ft. wide at bottom and 260 ft. wide on the water line, with a depth below water line of 12 ft.

Drainage—Gonzales, La.—Press reports state that following are bids opened by the Comrs. of New River Drainage Dist., at Gonzales, Feb. 4, for excavating drainage canal in said district, approximating 2,000,000 cu. yds. (price given per cu. yd.): Hampton Reynolds, New Orleans, 12 cts.; J. S. Codifer, New Orleans, 8¼ cts., cash basis; R. H. & G. A. McWilliam, Chicago, 7.65 cts., cash basis, and purchase of bonds to be issued by district, amounting to $175,000; D. B. Gore & Co., Shreveport, 3 bids, 7.49 cts., cash basis, 2d, 8.47 cts., and purchase of bonds at par; 3d, actual cost of work, at upset price of 6.75 cts., including 15 per cent commission and cost of equipment.

Ditch—Ft. Wayne, Ind.—Bids reported desired until Mar. 6 for 2¾ miles ditch construction. R. W. Guenther, Co. Engr.

Drainage Work—Walkerville, Mich.—Bids reported desired until Mar. 4 by County Drain Comrs. of Oceana and Newaygo Counties, at Inland Hotel, for constructing the Beaver Drain, total length about 38,432 ft., bottom width 10 to 20 ft. Orley A. Rhodes, Drain Comr., Newaygo County, Grant, Mich.

★**Drainage—Lewistown, Ill.** — Contracts reported awarded by Comrs. of Fulton County, at Lewistown, for the new West Matanzas Levee and Drainage Dist. work, as follows: To M. J. O'Mara & Sons, Beardstown, for construction of drainage ditches and levees at $110,000; to Beardstown Concrete Constr. Co., Beardstown, for building pumping plant at $12,000, and to H. B. Owsley Blasting Co., Beardstown, for all blasting and clearing work at $8,000.

Waterway—Springfield, Ill.—In his message to Illinois General Assembly, Governor Edw. F. Dunne, urged Legislature to authorize construction of an 8-ft. waterway between Joliet and Utica, which would open a channel from Great Lakes to Gulf of Mexico of same depth now maintained in Mississippi River. In such a waterway the present drainage canal, 20 miles of Illinois and Michigan Canal and 45 miles of Illinois River would be utilized; it also authorized issue of bonds not to exceed $3,500,000 for the work.

Drainage—Racine, Wis.—Bids reported desired until Mar. 6 by Comrs. of Mt. Pleasant and Somerset Drainage Dist., at office of Thompson, Myers & Kearney, First Natl. Bank Bldg., for constructing tile drains, involving 47,383 cu. yds. excavation.

Ditch—Clarion, Ia.—Bids desired until Mar. 3 by F. E. Osier, County Aud., for constructing Drain No. 107, Boone Township, approximately 79,470 ft. in length.

★**Ditch—Logan, Ia.**—Contract for construction and repair of ditches around Modale reported awarded as follows: Hawkeye Tiling Constr. Co., Webster City, $8,000; open ditch of Modale Dist. and repairs to Young ditch, Fred M. Crane, Omaha, at a total of $8,450.

Drainage Work—Northwood, Ia.—Bids desired until Mar. 4 by C. N. Urdahl, County Aud., for furnishing material and constructing drains and ditches in Drainage Dist. No. 19, in all about 58,893 ft. 6 to 24 in. tile, 3,752 cu. yds. earth excav.

★**Ditch—Bemidji, Minn.**—Contract reported awarded to Geo. E. Brown, of Litchfield, for constructing Ditch No. 27, at about $63,000.

Dredge — Duluth, Minn.—Bids desired until Mar. 26 by Maj. E. D. Peek, Corps Engrs., U. S. A., Duluth, Minn., for constructing and delivering complete the steel hull 4½-yard dipper dredge Col. D. D. Gaillard, advertised in Engineering Record.

Drainage—Elbow Lake, Minn.—Bids desired until Mar. 5 by C. M. Nelson, Co. Aud., for Job No. 1, County Ditch No. 21, requiring 3000 ft. open ditch and 49,196 ft. tiled ditch; also Job No. 2, County Ditch No. 18, 5700 ft. open ditch, 14,151 cu. yds. excavation, 2000 ft. tiled ditch. J. E. Cole, Engr. in Charge, Morris.

Ditch Work—Owatonna, Minn.—Bids desired until Mar. 13 by M. J. Parcher, Co. Aud., for constructing Judicial Ditch No. 2, consisting of excavation of main ditch, 3 laterals and 3 branch ditches, containing about 240,447 cu. yds. of excav.; also furnishing and installing 30 corrugated metal culverts and constructing a highway bridge. Geo. A. Ralph, Engr., 410 Shubert Bldg., St. Paul.

★**Earthwork—Elsberry, Mo.**—Contract reported awarded to Wm. J. Callahan Constr. Co., Elsberry, for 100,000 cu. yds. of earthwork in the Elsberry Drainage Dist., at $13,480.

★**Drainage—Cape Girardeau, Mo.**—Contract awarded Feb. 9 by Comrs. Little River Drainage Dist. (Wm. A. O'Brian, Ch. Engr.) for ditches Nos. 11 and 17, about 9,849,071 cu. yds., to the Hoosier Land & Investment Co., Sikeston, at 6.19 cts. per cu. yd. for excavation, and $20 per acre for clearing.

Ditches, Etc.—Edna, Tex.—Bids reported desired until Mar. 9 by Drainage Comrs., County Drainage Dist. No. 5 (J. W. De Witt, Chmn.), for constructing canals, drains, ditches and levees and straightening and cleaning water courses and other necessary work in said Drainage Dist., consisting of about 102 miles of ditches, yardage about 627,390, area of district about 30,389 acres.

★**Wharf—Houston, Tex.**—E. E. Sands, City Engr., estimates cost of constructing a city wharf, warehouse and railroad switches on south side of turning basin, at $150,000, which will be constructed by Horton & Horton, of Houston.

Dock—Hoquiam, Wash.—The Grays Harbor Port Comn. reported to have decided to construct a wharf 150 x 1250 ft. at 8th St. to cost about $75,000.

★**Dike, Etc.—Kelso, Wash.**—Contract awarded Feb. 9 by Comrs. Diking Dist. No. 2 (G. T. Hogg, Secy.) for constructing dikes and ditches involving 450,000 cu. yd. excavation to Collier & Sieverson, Salem, Ore., at $35,445. Other bids: Montague O'Reilly, Portland, Ore., $48,000; Columbia Agricultural Co., $38,500; Hans Pederson, $55,000; Reliance Constr. Co., $55,000.

Waterway—Tacoma, Wash.—Bids will probably be received in June for the construction of a waterway, to cost about $350,000 from plans of L. A. Nicholson, Room 507 Fidelity Bldg.

Irrigation—Tonasket, Wash.—It is reported that property owners of McLaughlin Flat have formed organization to construct an irrigation system to water about 2500 acres here. Committee has appointed E. B. Girnnell, chairman, to investigate and have plans prepared.

Pier—Long Beach, Cal.—Scott W. Alexander, owner of Hotel Alexander, is reported interested with the citizens of Long Beach in the construction of a $1,000,000 municipal horseshoe pier, extending from American Ave. to Pine Ave. and 1500 ft. out to sea.

Wharf—Richmond, Cal.—A. C. Faris, City Clk., writes all bids opened Feb. 15 for constructing municipal wharf No. 1 have been rejected and new bids will be received Mar. 1. Cost reported to be $270,000.

★**Pier — San Francisco, Cal.**—Contract reported awarded by State Bd. Harbor Comrs. for repairing Pier 21, at foot of Filbert St., to the San Francisco Bridge Co., at $11,887.

★**Dam—Boise, Idaho.** — Contracts reported awarded by Dept. of Interior, at Washington, D. C., for a movable crest for the Arrowrock dam, Boise irrigation project, Idaho: Schedule 1, to Chicago Bridge & Iron Works, of Washington Heights, Ill., at $8,743; schedules 2 and 5, to Independent Bridge Co., of Pittsburgh, Pa., at $9,583; schedule 4, Western Pipe & Steel Co., of Richmond, Cal., $6,832. Bids on schedule 3 rejected.

Irrigation — Weiser, Idaho. — Irrigation Dist. No. 1, of East Weiser, will start work about Mar. 15 on construction of ditches, to cost about $15,000.

★**Dock Improvements—Port Arthur, Ont.**—Contract reported awarded to Barnett & McQueen, of Ft. William, to extend dock front and make other improvements at the plant of the Canadian Northern Coal & Ore Dock Co., at about $100,000.

ELECTRIC RAILWAYS.

Items Arranged Geographically

Newbern, N. C.—Plans are being made by Newbern-Ghent St. Ry. Co. to extend lines in Newbern at cost about $40,000.

Little Falls, Minn.—Plans are being considered by Minneapolis & Central Minnesota Ry. Co. to construct line between Little Falls and Pierz. E. G. Potter, 433 Andrews Bldg., Minneapolis, Pres.

Sacramento, Cal. — West Sacramento Electric Ry. Co. is incorporated to build an electric railway in Sacramento. Capital $100,000. Among incorporators are: Benj. P. Lilienthal, San Francisco; Herbert W. Furlon, Pleasonton, and others.

San Francisco, Cal.—Utilities Com. has directed City Engineer to prepare plans for municipal railway across Golden Gate Park; estimated cost $200,000.

Sausalito, Cal.—Plans and specifications for the Sansalito Incline Electric Cable Ry. have been completed and the company will soon call for bids. Cars, winding machinery, rails, slot bars, cable, ties, sheaves, pulleys, electric motor, electric trolley equipment and lumber. For further information address A. E. Roberts, Engr., Sansalito.

RAILROADS.

Items Arranged Geographically

Cranford, N. J.—The Bd. of Public Utilities Comrs. at Trenton reported to have recommended elimination of grade crossing on Union Ave. of the Central of N. J. R. R. Co.

Alva, Okla. — A charter is reported granted to the Alva, Buffalo & Colorado Railroad Co. to construct a railroad from Rosston to Buffalo, a distance of 20 miles. Incorporators: J. H. Moran, L. A. Walton, Geo. Stafford and others, all of Alva.

PUBLIC BUILDINGS AND SCHOOLS.

Items Arranged Geographically

Brunswick, Me.—We are informed that it is proposed to reconstruct the high and grammar school recently burned; it will be of brick 125 x 65 ft., and cost $50,000. Architect not yet selected. John A. Cone, Chmn. School Com.

★**Boston, Mass.**—Contract for erecting the Industrial School for Boys awarded to Whiton & Haynes at $271,000 (bids opened Feb. 9).

Malden, Mass. — Reported competitive plans are being received for a tuberculosis hospital to cost $20,000.

Newport, R. I.—All bids received for erecting the John Clark School have been rejected. Plans are to be revised and new bids asked. Address Bd. Educ.

Clayville, N. Y.—Plans completed for the high school, to cost $30,000. Building is to have concrete foundations and be erected of brick and stone.

Buffalo, N. Y.—See "Hydraulic Construction and River Improvements."

Hudson, N. Y.—Bd. Superv. reported to be considering plans for a new jail to cost about $60,000.

Inwood, L. I., N. Y.—Competitive plans being received until Mar. 3 by Franklin B. Low, 49 Wall St., New York, for a school to cost $90,000, which the Bd. of Educ. of Inwood contemplates erecting.

★**Long Island City, L. I., N. Y.**—Contract for erecting School 93, Borough of Queens, awarded to Frank J. Felgenhauer Co., Inc., 4 Court Sq., Brooklyn, at $256,479. Next three lowest bidders: T. A. Clarke Co., $272,600; H. C. Stowe Constr. Co., $274,650, and Peter Cleary, $276,700. Contract for plumbing was awarded to Thos. E. O'Brien, Inc., 6311 5th Ave., Brooklyn, at $16,498 (bids opened Feb. 16 by Bd. Educ., N. Y. City).

★Contract for erecting School 97, Boro. Queens, awarded to Frymier & Hanna Co., 25 W. 46th St., New York, at $155,990 (bids opened Feb. 23 by Bd. Educ., N. Y. City). Next three lowest bidders: T. A. Clark Co., $157,600; H. C. Stowe Constr. Co., $159,350, and Frank J. Felgenhauer Co., Inc., $159,979. Contract for plumbing and drainage awarded to Christ. Nally, 710 Columbus Ave., New York, at $10,764.

Bids desired until Mar. 8 by C. B. J. Snyder, Supt. Schools, New York City, for general construction, also plumbing and drainage, of School 41, Bayside, Boro. Queens. Security $40,000 and $4,000, respectively.

New York, N. Y.—Bids desired until Mar. 6 by A. Woods, Police Comr. for furnishing material and erecting new station house and garage for 61st Prect., Brook Ave. and 142d St., Boro. Bronx, also plumbing, water supply and gas fitting, also steam heating. Train, Hewlitt & Reddy, Archts., 1181 Bway.

Rochester, N. Y.—Plans prepared by Gordon & Madden, Rochester, for the fireproof building to replace School No. 14 recently destroyed by fire, and to be erected on University Ave.

Rosebank, S. I., N. Y.—Bids desired until Mar. 1 by Dr. Jos. J. O'Connell, Health Officer, Port of New York, Quarantine Station, Staten Island, N. Y., for construction, plumbing, heating, drainage, gas piping and electric work for animal building for Port of New York at Quarantine Station, Rosebank, Staten Island. L. F. Pilcher, State Archt., Capitol, Albany.

Wards Island, N. Y.—Following are bids opened Feb. 19 by State Hospital Comn., Albany, for erecting 3 acute hospital buildings at the Manhattan State Hospital, Wards Island (a) 100 patients, (b) 150 patients, (c) 200 patients: Emerson Bldg. Co., New York, (a) $104,100, (b) $118,500, (c) $141,000; Peter Keeler Bldg. Co., Albany, (a) $106,522, (c) $149,222; Geo. B. Wills & Co., Inc., New York, (a) $107,687; DeKimpe Constr. Co., Hoboken, N. J., (b) $124,000; John T. Brady & Co., New York, (b) $124,000; John H. Parker Co., New York (c) $144,567. Lowest bids received on heating were Walker & Chambers, New York, (a) $11,210, (b) $11,425, (c) $16,200; plumbing: Jas. Harley Plumb. Co., Broklyn, N. Y., (a) $10,045, (b) $11,879, (c) $10,074.

Yonkers, N. Y.—Site at N. Bway. and Ashburton Ave. selected for the new high school.

Camden, N. J.—Plans and specifications prepared for improvements contemplated to the Camden County Insane Asylum, costing $50,000.

★**Morristown, N. J.**—Contract for erecting U. S. Post Office awarded to Chas. McCaul Co., Philadelphia, Pa., at $99,790.

Plainfield, N. J.—Bids desired until April 2 by O. Wenderoth, Superv. Archt., Washington, D. C., for construction, complete (including mechanical equipment, lighting fixtures and approaches) U. S. Post Office at Plainfield. Advertised in Engineering Record.

Secaucus N. J.—Dr. Gorden K. Dickinson, Pres. Bd. Mgrs. Tuberculosis Hospital, has recommended to the Co. Bd. Chosen Freeholders, Jersey City, that they build a tuberculosis hospital at Secaucus.

Trenton, N. J.—Bd. School Estimate appropriated $260,000 for construction, furnishing and equipping of the Junior High School on the Almshouse site.

Beaver Falls, Pa.—Bids desired until Mar. 6 by County Comrs. (Geo. W. Sweeney, Clk.), for erecting Beaver County Home. Separate bids desired for ventilating and heating; plumbing and electrical work. Plans and specifications can be procured by application to architect, 7119 Jenkins Arcade Bldg., Pittsburgh.

Laurelton, Pa.—Plans being prepared by Geo. S. Idell, 34 S. 16th St., Philadelphia, for 3-story brick and stone State Hospital to be erected here.

Mahanoy City, Pa.—Plans being prepared by Clyde S. Adams, Philadelphia, for a 2-story brick and stone school. Address School Bd.

McKeesport, Pa.—Reported specifications will be completed about March 1 for the high school; Vrydaugh & Wolfe, Archts., 347 5th Ave., Pittsburgh. Address Bd. Educ.

★**Myerstown, Pa.**—Contract for erecting high school awarded to Beard Constr. Co., Reading.

Nanticoke, Pa.—Bd. Trus. Nanticoke State Hospital contemplate erecting a nurses' home costing $30,000. E. S. Davis, Archt., Scranton.

New Castle, Pa.—Plans being prepared by H. M. Wirsing, New Castle, for school to be erected in 7th Ward at a cost of $80,000. Address Bd. Educ.

Philadelphia, Pa.—Bids desired until Mar. 8 by Committee on Property, Bd. Educ. (Wm. Dick, Secy.), for erecting a school containing 33 classrooms at 56th St. and Kingsessing Ave., an addition to Sharswood School, 2d and Wolf Sts., containing 18 classrooms and an addition to the Morton School, 63d St. and Elmwood Ave., containing 6 classrooms.

Port Carbon, Pa.—Reported plans are being revised for the 2-story brick school to cost $40,000. E. Z. Scholl, Archt., Reading.

South Bethlehem, Pa.—Plans completed by A. W. Leh, South Bethlehem, for the high school to be 3-story, brick, stone, terra cotta and granite, and cost about $185,000.

South Fork, Pa.—Bids desired until Mar. 2 by School Bd. for a 3-story fireproof addition to South Fork High School. J. E. Adams, Archt., Lincoln Bldg., Johnstown.

Columbia, S. C.—Governor has signed bill providing for an election on a bond issue of $250,000 to erect a new high school and make other school improvements.

Lincolnton, Ga.—Bids desired until Mar. 15 by Saml. L. Wilkes, Ordinary, Lincolnton, for erecting a 2-story brick and frame court house; cost reported at about $30,000. G. Lloyd Preacher, Archt., Augusta.

Savannah, Ga. — Auditorium bonds amounting to $200,000 have been sold.

Clermont, Fla.—Bids desired until Mar. 8 by Bd. Pub. Instruction for Lake County, at the office of the Superintendent at Tavares, for furnishing material and erecting a brick school in Clermont. W. H. Carr, Archt.; L. M. Johnson, Chmn. Bd.

Jacksonville, Fla.—Com. on Pub. Wks. adopted a resolution to take steps toward erecting a new city hall.

★*Items marked thus give the names of parties awarded contracts.*

Live Oak, Fla.—Bids desired until April 6 by O. Wenderoth, Superv. Archt., Washington, D. C., for construction, complete (including mechanical equipment, lighting fixtures and approaches) U. S. Post Office at Plainfield.

★**West Palm Beach, Fla.**—Contract for erecting court house awarded to Everet P. Maule at $122,000.

Greenville, Miss.—Bids desired until Mar. 15 by J. E. Leppert, Chmn. Bldg. Com., at the office of the Mayor for erecting a high school, including heating, plumbing, etc. R. H. Hunt, Chattanooga, Archt.

Akron, O.—Reported that about $230,000 is available for the building and site for the armory auditorium.

Alliance, O.—Plans completed by Willard Harsh, Cleveland, for the City Hospital. Address Mayor.

Champion, O.—Bids desired until Mar. 1 by F. R. Boyd, Clk., Bd. Educ., Champion Township Rural School Dist., for furnishing material and erecting a 6-room brick and fireproof school. Kling & Zenk, Archts., Davis Blk., Youngstown.

Cincinnati, O.—Following are lump sum bids for erecting courthouse, opened Feb. 16 by Courthouse Comrs.—(a) granite, (b) limestone: Chas. McCaul & Co., Philadelphia, Pa., (a) $1,999,900, (b) $1,763,000; Bedford Stone & Constr. Co., Indianapolis, Ind., (a) $2,009,000, (b) $1,776,300; Geo. W. Fuller Co., New York, N. Y., (a) $2,085,000, (b) $1,844,700; John Gill & Son, Cleveland, (a) $2,155,000, (b) $1,905,000; Thompson Starrett Co., New York, (a) $2,095,000, (b) $1,865,000; Arthur W. Riesen, Milwaukee, Wis., (b) $1,963,000; John Griffith & Sons Co., Chicago, Ill., (a) $2,167,000, (b) $1,197,000; Wm. Doll, Cleveland, (a) $2,238,500, (b) $1,999,500; Harig & Co., Cincinnati, bid $2,176,000, and Roche-Brunner Co., Cincinnati $2,295,950.

Dayton, O.—Following are the four lowest bids on the general construction, which includes structural work, received Feb. 15, by Bd. Educ., for erecting the school at Cambridge, Yale and Euclid Ave.: King Lumber Co., Charlottesville, Va., $127,000; A. Bentley & Sons Co., Dayton, $137,490; Structural Concrete Co., Dayton, $140,500, and A. M. Frey, Piqua, $143,572. Lowest bid for heating and ventilating was from M. J. Gibbons, of Dayton, at $27,307; and plumbing from Case-Ringlesbaugh Wilson Co., Dayton, at $10,626. Schenck & Williams, of Dayton, Archts.

Bids desired until Mar. 16 by Co. Comrs., Dayton, for erecting a wing addition to Montgomery County Children's Home. Peters, Herman & Brown, Archts., 1129 Reibold Bldg.

Delaware, O.—Bids desired until Mar. 16 by Bd. Educ. (W. A. Dunlop, Clk.), Concord Township, Delaware, R. F. D. No. 5, for furnishing material and erecting a brick and stone centralized school. Chas. L. Inscho, Archt., Brunson Bldg., Columbus.

Fostoria, O.—Plans for addition to high school to cost $120,000 have been prepared.

Lancaster, O.—Plans for City Hospital to be prepared by Wilbut T. Mills, Columbus; cost, $50,000.

Rittman, O.—Bids reported desired until Mar. 2 by Bd. Educ. for erecting a school, concrete foundation, brick and stone construction, cost $40,000. National Eng. Co., Engrs., Marshall Bldg., Cleveland.

Rocky Ridge, O.—Bids desired until Mar. 18 by Bd. Educ. (A. W. Hablitzel, Clk.), for erecting a school. Separate bids desired for ventilating and heating. Thos. F. Huber, Archt., Spitzer Bldg., Toledo.

Springfield, O.—Robt. C. Gotwald, Gotwald Bldg., engaged to prepare plans for remodeling the county infirmary into a modern school building. Bids for construction will be asked in about a month.

West Austintown, O.—Bids desired until Mar. 17 by E. A. Houk, Clk. Bd. Educ., Austintown Township, R. F. D. No. 1, West Austintown, for furnishing material and erecting a 10-room centralized school with auditorium and gymnasium of composite construction at Austintown. Miller & Ford, Archts., Dollar Bank Bldg., Youngstown.

Willoughby, O.—New bids desired by F. A. Gillette, Clk. Bd. of Educ., Mar. 23, for erecting fireproof brick and concrete high school, from plans of Franz C. Warner, Hippodrome Bldg., Cleveland; cost about $80,000.

Wilmington, O.—At recent election citizens voted in favor of $300,000 courthouse bond issue.

Zanesville, O.—Plans being prepared by H. C. Meyer and C. E. Handschy, of Zanesville, for the new market, providing for 14 entrances.

Hammond, Ind.—Bids desired until Mar. 5 by School Bd. (A. J. Dressen, Secy.) for erecting Columbia School at Morris Park addition to Hammond. Mac Turner, Archt., Tapper Bldg.

Terre Haute, Ind.—Lowest bid received by Bd. School Trus. Feb. 13 for erecting McLean School was submitted by State Constr. Co., Indianapolis, at $192,897.

No bids were received Feb. 13 for the $300,000 school bonds.

Ann Arbor, Mich.—Bd. Regents has authorized improvements to the Waterman Gymnasium at the Univ. of Michigan, to cost $50,000.

Ewen, Mich.—Plans prepared by C. W. Mass, of Houghton, for high school to be erected in Ewen for McMillan Township, and for which citizens recently voted $30,000 bonds.

Hastings, Mich.—Plans for high school to be prepared by Rockwell A. Leroy, of Kalamazoo.

Owosso, Mich.—Citizens voted in favor of issuing $30,000 bonds to erect an 8-room school.

Quincy, Ill.—School bonds amounting to $80,000 have been sold. Address Bd. Educ.

Sparta, Ill.—Plans being prepared by N. S. Spencer, of Champaign, for erection of a 2-story brick high school, 142 x 86 ft. T. B. Stephenson, Secy. Bd. Educ.

Ladysmith, Wis.—Plans for the hospital for Mantellate Sisters, O. S. M., are to be prepared by H. T. Liebert, Marathon Co. Bank Bldg., Wausau; cost $40,000.

Millersburg, Ia.—Bids desired until Mar. 10 by G. E. Jack, Secy. Independent School Dist., Millersburg, for erecting a 9-room school. Reimer & Berlin, Archts., Marshalltown.

Lamberton, Minn.—Citizens voted in favor of issuing $45,000 bonds for erecting high school.

★**Duluth, Minn.**—Contract for erecting 4-story, fireproof, steel, brick, stone and concrete armory at 13th Ave. E. and London Rd. awarded to Geo. H. Lounsberry, Lonsdale Bldg., at $107,410. Kelly & Williams, Archts., Duluth.

Girard, Kan.—Bids desired until Mar. 1 by Bd. Educ. for erecting a high school and 2 ward schools, including heating, plumbing and ventilation. J. H. Felt & Co., Archts., Kansas City, Mo.

Kansas City, Kan.—Bids reported desired until Mar. 8 by Bd. Educ. (W. A. Seymour, Secy.) for erecting Whittier School addition, 2 stories and basement, 130 x 190 ft., part fireproof. Probable cost $80,000. Rose & Peterson, Archts., Barker Bldg.

★**McCook, Neb.**—Contract for erecting U. S. Post Office awarded to C. E. Goodhand, Ord, at $98,250.

Castlewood, S. D.—Citizens of the county voted in favor of issuing $60,000 bonds to erect a court house.

Beaumont, Tex.—Plans accepted by Co. Comrs. for a 7-story 100 x 100-ft. stone, granite and concrete jail to cost $350,000.

★**Ennis, Tex.**—Contract for erecting U. S. Post Office awarded to Volney E. Taylor, Huntington, W. Va., at $52,275.

Houston, Tex.—School Bd. intends erecting an annex to the Ball High School; cost $55,000.

Seattle, Wash.—City Council has voted to remodel fourth floor of the city hall for jail purposes; cost $50,000.

Wenatchee, Wash.—Plans completed by A. Lundstrum, North Yakima, for a 2-story reinforced concrete and brick school to cost about $45,000.

Grant's Pass, Ore.—Plans to be prepared by E. E. McClaren, Lumber Exchange Bldg., for a court house.

Kingsburg, Cal.—Johnson Bros., of Kingsburg, are architects for the proposed school, for which $40,000 bonds were recently sold. H. E. Verble, Clk. High School Com.

Stockton, Cal. — Plans completed by Stone & Wright, 24 S. California Ave., for a school to be erected on North St., at a cost of $65,000.

St. Catharines, Ont.—Bids desired until Mar. 15 as a whole or separately by A. E. Nicholson, Archt., 46 Queen St., all trades for erecting a new collegiate institute here.

Tucson, Ariz.—Plans prepared by Henry Jaasted, of Tucson, for a State Museum building to cost $30,000.

★Contract awarded Feb. 15 for erecting Safford high school to Arthur Jacobsen, of Tucson, at $31,240. Henry O. Jaostad, Archt., Tucson.

PRIVATE BUILDINGS.

Items Arranged Geographically

Boston Mass.—Plans being prepared by C. A. & F. N. Russell, 50½ Warren St., for fireproof apartment house to be erected on Seaver St. at a cost of $100,000, by Parker Estate.

W. Stanley Tripp, Boston, will erect a 5-story fireproof storage warehouse on Howard Ave., Allston. John C. Spofford, Archt., 1 Princeton Ave.

Newton, Mass.—The Old Colony Realty Assoc., of Boston, has secured a site on Eastbourne Road on which to be erected 9 brick apartment houses.

Middletown, Conn.—Plans being prepared by Mowbray & Uffinger, 56 Liberty St., New York, for 4-story office and bank building to be erected on Main St. by Central Natl. Bank.

Wallingford, Conn.—The Masons of the State propose erecting at the Home here a brick and concrete central building, costing $55,000. John O. Rowland, Supt.

Brooklyn, N. Y.—Reported Cass Gilbert, 11 E. 24th St., New York, has prepared plans for 6 fireproof warehouses to be erected at the barge canal terminal site at the junction of Newtown Creek and the East River, Greenpoint.

Plans filed for following buildings: 2-story brick shop at 1st Ave. and 53d St. for E. W. Bliss, cost $60,000, Walter Pfarlander, 75 Pineapple St., Archt.; 4-story brick tenement at Cropsey and 21st Aves. for Bensonhurst Improv. Co., cost $60,000, Gronenberg & Leuchtag, Archts., 303 5th Ave., New York; 6-story brick tenement at Keap and 4th Sts.; also 6-story brick tenement at Division and Bedford Aves. for Ross Land Co., cost $105,000, Shampan & Shampan, Archts., 772 Bway., Brooklyn; 6-story brick tenement at S. 2d and Berry Sts. for Gorer Realty Co., cost $50,000, Shampan & Shampan, Archts., 772 Bway., New York.

Long Island City, L. I., N. Y.—Plans filed for 12-story brick loft building at 10th St. and Van Alst Ave. for Everett Realty Co., cost $500,000, Walter Haefell, Archt., 245 W. 55th St., New York.

New York, N. Y.—Plans filed for following buildings: 9-story brick fireproof apartment house at Lexington Ave. and 84th St. for Surrey Realty Co., cost $210,000, Schwartz & Gross, Archts., 347 5th Ave.; 5-story brick non-fireproof tenement at Vermilyea Ave. and Academy St. for 25 Vermilyea Ave. Co., Inc., cost $60,000, Geo. F. Pelham, Archt., 30 E. 42d St.; 12-story brick fireproof tenement at Bway. and 89th St. for West Side Constr. Co., cost $200,000, Geo. F. Pelham, Archt., 30 E. 42d St.; 9-story brick fireproof apartment house at 122 E. 76th St., for J. Tishman & Sons, cost $250,000, Schwartz & Gross, Archts., 347 5th Ave.; 5-story brick apartment house at 341 Edgecomb Ave., cost $75,000, Saml. Katz, Archt., 1 Madison Ave.; one 6½-story and one 6-story brick fireproof dwelling at 4 to 8 E. 80th St., for Frank W. Woolworth, total cost $120,000, C. P. H. Gilbert, Archt., 1123 Bway.; 12-story brick fireproof store and loft building at 29 W. 36th St. for Fredk. Ayer, Beverly, Mass., cost $100,000, Maynicke & Franke, Archts., 25 Madison Sq.; 8-story brick fireproof mercantile store and loft building at 5th Ave. and 48th St., for Saml., Wm. C. and Gustave Frank, cost $50,000, Alfred Freeman, Archt., 29 W. 34th St.; five 5-story brick tenements at 188th St. and Valentine Ave. for Tieval Bldg. Co., cost $250,000, Harry T. Howell, Archt., 3d Ave. and 149th St.; two 5-story brick tenements at Valentine Ave. and 184th St. for Hargton Bldg. Co., cost $100,000, Harry T. Howell, Archt., 3d Ave. and 149th St.; two 5-story brick tenements at Nelson Ave. and Brandt Pl. for John Davis, cost $80,000, Edw. J. Byrne, Archt., 148th St. and Willis Ave.

★Contract awarded to Brown Bros., Inc., 11 E. 30th St., for erecting 6-story addition to club house of Lambs Club at 132 W. 44th St. Cost about $250,000. Geo. Albree Freeman, Archt., 311 Madison Ave.

★Contract awarded to A. L. Mordecai & Son, 30 E. 42d St., for erecting 11-story limestone, brick and terra cotta store and loft building on Bway. between 41st and 42d Sts. on site of Hotel Saranac. Cost $500,000. Rouse & Goldstone, Archts., 40 W. 33d St.

Plans being prepared by Louis E. Jallade, 37 Liberty St., for a 7-story brick and limestone Y. W. C. A. building to be erected at Lenox Ave. and 124th St. by the Y. W. C. Assoc., 600 Lexington Ave.

Plans being prepared by Maynicke & Franke, 25 E. 26th St., for a 22-story loft building to be erected on 42d St., between 8th and 9th Aves., for C. H. Darmstadt; cost about $1,500,000.

★General contract awarded to E. Brooks & Co., 3 W. 39th St., for erecting 13-story apartment house, brick and limestone, at Park Ave. and 55th St., for the Park Ave. and 55th St. Corporation; cost about $400,000. Cross & Cross, Archts., 10 E. 47th St.

Utica, N. Y.—Plans being prepared by Chas. Kiehm, Garner Blk., for a 3-story, 60 x 160-ft. laundry building, and a 1-story 50 x 70 ft. power house to be erected by Jas. F. Leahy, 411 John St.; cost $50,000.

Bloomsburg, Pa.—Plans being prepared for a 3-story brick and stone lodge building which Berwick Lodge No. 246 of the Odd Fellows intends erecting.

Devon, Pa.—John S. Bloren, Pres. Merchants Union Trust Co., Philadelphia, reported to have secured a site here on which to erect a county home costing $40,000; plans are being prepared.

Philadelphia, Pa.—Plans are to be prepared by Henon & Boyle, Fuller Bldg., for a restaurant and bakery building, costing $50,000, to be erected at Market and Mole Sts.

John Thommen, 251 S. 23d St., intends erecting at 1520 Market St. a $50,000 building.

★Contract has been awarded to Cramp & Co., Philadelphia, for erecting a 9-story loft building at 13th and Appletree Sts. for Louis A. Belmont, to be of reinforced concrete and cost, including site, $300,000. Chas. E. Oelschlager, Archt., Harrison Bldg.

Washington, D. C.—Plans prepared by Geo. N. Ray for a 7-story apartment house to be erected at New Hampshire Ave. and U Sts. N. W. by Wm. J. Kehoe at a cost of $500,000.

Baltimore, Md.—The Atlantic Can Co. Aliceanna and Chester Aves., intends erecting a 5-story brick 60 x 162 ft. warehouse, plans for which are being prepared by Wm. O. Sparklin, Law Bldg.

Site at Franklin St. and Park Ave., purchased by Y. W. C. A., for building proposed with the $400,000 recently raised.

Plans have been prepared for a 4-story concrete warehouse to be erected at 123 Barre St. for Fritz Leuba. Henry Massart, Engr., 15 E. Lafayette St.

Calvert Constr. Co., Baltimore, will erect at Calvert and 31st Sts., a 4-story apartment house costing $100,000. E. H. Glidden, Archt., Baltimore.

★**Havre de Grace, Md.**—Contract for erecting stone residence and garage for J. P. Richards near Havre de Grace awarded to Willard E. Harn Co.; cost about $40,000. Walter M. Gieske, Archt., Gunther Bldg., Baltimore.

Burkettsville, O.—Reported plans being prepared by J. F. Sheblessy, Cincinnati, for St. Bernard R. C. Church, to cost $60,000. Building to be fireproof.

Cincinnati, O.—Preliminary plans prepared by Saml. Hannaford & Sons, Hulbert Blk., for a 2-story, 138 x 150 ft., brick and terra cotta store building, which L. B. Reakirt, of the Bodmann estate, 621 Main St., will erect on 5th and Sycamore Sts.

Cleveland, O.—Plans being prepared for a car barn and power unit buildings to be erected by the Cleveland Ry. Co. (Geo. L. Radcliffe, Gen. Mgr., Cleveland) at Denison Ave. and W. 73d St., at a cost of about $100,000. Buildings are to be of brick, concrete, steel and fireproof.

★**Columbus, O.**—Contract for erecting St. Dominic's R. C. Church awarded to D. W. McGrath.

Plans being prepared by J. Upton Gribben, Columbus Savings & Trust Bldg., for the addition to Indianola Methodist Church, to cost $40,000. Rev. P. E. White, Pastor.

Dayton, O.—Plans are being prepared by Thies & Thies, 208 S. Ludlow St., for a 10-story brick and concrete hotel, to be erected at 5th and Wilkinson Sts., at a cost of $200,000.

The Daytonia Hotel on W. 2d and Main Sts., is to be enlarged and modernized at a cost of $75,000. Hayner Estate, owners.

Thies & Thies, 208 S. Ludlow St., preparing plans for a 3-story apartment house to be erected at 3d St. and Western Ave. and to cost $75,000.

Sidney, O.—Plans about completed by W. F. Miller, Springfield, for a 3-story office building to be erected by Sterline Kelsey estate. Cost, including equipment, about $100,000.

Van Wert, O.—Plans for Y. M. C. A. building to be prepared by Shattuck & Hussey, Chicago.

Huntington, Ind.—The Elks propose erecting a $25,000 building. H. W. Hock, Chmn. Bldg. Com.

South Bend, Ind.—Elmer Crockett intends erecting on Lafayette St. and Washington Ave. a 2-story and basement brick and stone building to be known as the Crockett Bldg. W. W. Schneider, Archt., 110 W. Jefferson St.

Detroit, Mich.—Plans to be prepared by Smith, Hinchman & Grylls, Washington Arcade, for a 12-story hotel to be erected by Lafayette Land Co., at Lafayette Boule. and Cass Ave., at a cost of approximately $1,500,000.

Albert Lea, Minn.—H. J. Harm is reported interested in a company which intends erecting at Newton and William Sts. an office building at least 5 stories high and to cost $100,000.

Albert Lea, Minn.—Y. M. C. Assoc. reported to be taking steps to erect a $60,000 building at W. Clark and St. Mary's St.

Minneapolis, Minn.—Harris Realty Co. will erect at Marquette Ave. and 12th St. a 3-story fireproof building for the Nevens Co. to house the laundry and dye house: cost $100,000. Bertrand & Chamberlain, Archts., Bank of Commerce Bldg.

St. Paul, Minn.—City Council has approved plans for the Union Station, cost $15,000,000.

Joliet, Ill.—Plans are to be prepared by W. C. Zimmerman, Chicago, Ill., for the 6-story steel and concrete building to be erected to replace the D'Arcy Bldg. on N. Chicago St. and owned by J. W. D'Arcy. Probable cost $150,000.

Springfield, Ill.—Knights of Pythias reported planning erecting a temple, costing $50,000.

Leavenworth, Kan.—Reported Great Northern R. R. (A. H. Hogeland, Ch. Engr., St. Paul, Minn.), intends erecting a reinforced concrete roundhouse this summer costing $100,000.

Omaha, Neb.—Geo. A. Joslyn will erect for the Western Newspaper Union and the Western Paper Co., at 9th and Harvard Sts., a 5-story reinforced concrete fireproof building; plans being prepared by John McDonald, Omaha Natl. Bank Bldg.

St. Louis, Mo.—Carondelet Methodist Church intends erecting at Kings Highway S. E. and Colorado Ave. a church costing $40,000.

★*Items marked thus give the names of parties awarded contracts.*

★**Austin, Tex.**—Contract for erecting the Gaiety Theatre on Congress Ave. awarded to J. E. Johnson, at about $51,000.

Galveston, Tex.—J. C. League intends erecting a store and hotel building at 21st and Church Sts., to be 3-story brick and stone and cost $40,000. A. J. Bellis, Archt.

Albany, Ore.—Reported Dr. J. P. Wallace intends rebuilding the Wallace Block, recently destroyed by fire.

Astoria, Ore.—Plans are to be prepared by Chas. H. Withers, Astoria, for 4-story reinforced concrete apartment house to be erected at 3d and Commercial Sts. for Alex. Muller; cost, $50,000.

Klamath Falls, Ore.—Reported bids desired about Mar. 1 by Bldg. Com. B. P. O. Elks for erecting a 2-story steel and concrete, brick and terra cotta lodge building, costing $50,000. Houghtaling & Dougan, Archts., Henry Bldg., Portland.

Portland, Ore.—Plans being prepared by Reitz, Story & Duffy, Northern Bank Bldg., Seattle, Wash., for dock, warehouse offices, tanks, etc., for the Shell Oil Co. of California, to cost about $100,000.

It is reported that R. F. Wassell, 204 E. 15th St., is interested in company which intends erecting a 5-story brick apartment house at 18th and Couch Sts., to cost $100,000.

Oakland, Cal.—Plans completed by W. A. Newman, David Hewes Bldg., San Francisco, for a brick church costing $70,000 to be erected for the Second Church of Christ (Scientist) at Elm and 34th Sts.

NEW INDUSTRIAL PLANTS.

Items Arranged Geographically
See also "Private Buildings."

★**Barnard, N. Y.**—Contract for erecting 3-story, 70 x 70 ft., steel and brick mill for Pennsylvania Feldspar Co. awarded to Gorsline-Swan Contr. Co., Rochester. Steel work awarded to American Bridge Co.

★**Lackawanna (P. O., Buffalo), N. Y.**—Contract awarded to Otto Coking Co., 6 Church St., New York, N. Y., for constructing for Lackawanna Steel Co., at Lackawanna City, a benzol plant in connection with the byproduct coke ovens of said company.

Portchester, N. Y.—Plans being prepared by R. G. Cory, Engr., 39 Cortlandt St., New York, N. Y., for a 3-story addition to main factory of Simons Mfg. Co.; also an additional story to adjoining building. Cost $25,000.

★**Passaic, N. J.**—Contract for foundation (including piles and reinforced concrete capping) of the pan house extension to boiler house at plant of Paterson Parchment Paper Co. awarded to MacArthur Concrete Pile & Foundation Co., 11 Pine St., New York.

★**Chester, Pa.**—Contract for covering concrete pile foundation of the coke bin and coal unloading pocket at the plant of the Philadelphia Suburban Gas & Electric Co. awarded to MacArthur Concrete Pile & Foundation Co., 11 Pine St., New York.

Lagrange, Ga.—Reported Hillside Cotton Mills is about to ask bids for erecting cotton mill projected in this city. Plans include a 3-story main building, 132 x 315 ft., with boiler and engine room connecting, together with 21 store warehouses, 70 x 81 ft., a one-story office building, 30 x 50 ft., and about 150 4-room tenant houses.

★**Macon, Ga.**—Contracts for remodeling the old building and erecting a new structure at Mill No. 1 in East Macon awarded by Bibb Mfg. Co. to Gallavan Bldg. Co., of Greenville, S. C. About $60,000 will be spent on building and machinery.

Bessemer, Ala.—Reported U. S. Cast Iron Pipe & Fdry. Co. will erect a new unit at the plant here, cost $50,000.

Detroit, Mich.—The Menzies Shoe Co., 431 Gratiot Ave., intends erecting at Scotten and Brandon Aves. a 4-story reinforced concrete and fireproof factory, costing $75,000.

Texas.—The Texas Southern Electric Co., 50 Congress St., Boston, Mass., propose adding to its Victoria plant a 50-ton distilled water ice plant, and a 500 K.W. surface condensing outfit for steam turbine, and at Kingsville, a 20-ton raw water plant, together with rebuilding of a 20 ton absorption plant. Scofield Eng. Co., Philadelphia, Pa., Consulting Engrs.

Lacrosse, Wash.—Reported stockholders of Farmers' Union Elevator Co. have subscribed funds for constructing a flour mill costing about $75,000.

Seattle, Wash.—Plans prepared by Bebb & Gould, Denny Bldg., for fireproof factory which R. H. Fridman Co., paper board manufacturers of Los Angeles and Oakland, propose erecting in this city, and bids for construction will be received at once. H. C. Fields, 310 White Bldg., Seattle, Mgr.

Toronto, Ont.—Rudd Paper Box Co., Richmond St., West, Toronto, will rebuild plant recently destroyed by fire, cost $30,000.

West Toronto, Ont.—Reported W. H. Banfield & Sons, 120 Adelaide St., manufacturer of dies, tools, screw press, etc., intends installing machinery in factory building recently purchased.

MISCELLANEOUS.

See also "Hydraulic Construction and River Improvements."

Items Arranged Geographically

Coal-Handling Apparatus, Etc.—Boston, Mass.—Bids desired until Mar. 16 by Trustees Boston City Hospital (John J. Dowlings, M. D., Supt.) for coal pocket and coal-handling apparatus for Boston City Hospital.

Street Signs — Waterbury, Conn.—Bids are desired until Mar. 2 for 1500 street signs and holders. W. E. Kennedy, Supt. Street and Sewers.

Broken Stone—New Brighton, S. I., N. Y.—See "Paving and Roads."

Park Work—Harrisburg, Pa.—Warren H. Manning, of Boston, Mass., Landscape Archt., of the City Planning Comn., has completed a sketch for treatment of the Capitol Park extension zone, including an amphitheatre facing the Pennsylvania Railroad, sunken roadways, bridges, driveways, terraces and a subway at the railroad to replace State St. bridge. The architect's plans are in connection with a plan which includes beautifying entire length of State St., across which Capitol building extends.

Parkway Improvement — Philadelphia, Pa.—See "Paving and Roads."

Subway — Flint, Mich.—Citizens voted Feb. 17 to issue $50,000 bonds for constructing subway and under tracks of Pere Marquette R.R. D. E. Newcombe, City Clk.

Oil Reservoirs—Portland, Ore.—Reitze, Storey & Duffey, Engrs., Northern Bank & Trust Bldg., Seattle, Wash., reported to have been commissioned by the Shell Co., of California, to prepare plans for 2 oil reservoirs of steel construction with concrete foundations to be built in Portland; also for docks, pipe lines, etc., to be built here, the entire work to represent an outlay of $500,000. The reservoirs will have a capacity of 55,000 bbls. each.

★**Engines and Pumps—Portland, Ore.**—Contracts reported awarded by the port of Portland Comn. on Feb. 11 as follows: For 2 engines, to Kerr Turbine Co., $13,870, and a 30-in. centrifugal pump, to Portland Iron Works, $7,591.

Elevators, Etc.—San Francisco, Cal.—Bids opened Feb. 10 by Bd. Pub. Wks. (F. J. Churchill, Secy.) for installing elevators, hydraulic lifts, etc., in City Hall: Pacific Guiney Elevator Co., San Francisco, $50,950; Otis Elevator Co., San Francisco, $44,475.

Proposals

For Proposals Advertised see Pages 44 and 45.

WATERWORKS.

Bids Close.		See Eng. Record.
Mar. 1.	Bonds, Viola, Ill. Adv. Feb. 20, 27.	Feb. 20
Mar. 2.	**Reservoir, Fitchburg, Mass.** Adv. Feb. 6.	**Jan. 23**
Mar. 2.	Valves, etc., Toronto, Ont.	Feb. 13
Mar. 2.	Pump. Equipment, New Ulm, Minn.	Feb. 20
Mar. 2.	Add. to Supply, South Stillwater, Minn.	Feb. 20
Mar. 2.	Water Works, Notasulga, Ala.	Feb. 27
Mar. 2.	Valves, Chicago, Ill.	Feb. 27
Mar. 3.	Water Wks., Lyons, N. Y. Adv. Feb. 13, 20.	Feb. 13
Mar. 3.	Tank and Tower, Elyria, O.	Feb. 20
Mar. 4.	Tank, Stronghurst, Ill.	Feb. 27
Mar. 4.	Corporation Cocks, Etc., Columbus, O.	Feb. 27
Mar. 8.	Mains, East View, O.	Feb. 13
Mar. 9.	Mains, Euclid, O.	Feb. 13
Mar. 9.	Meters, Los Angeles, Cal.	Feb. 13
Mar. 9.	Tanks, Philippine Islands. Adv. Feb. 20, 27.	Feb. 20
Mar. 9.	Pipe, Etc., Chillicothe, Mo.	Feb. 27
Mar. 10.	Water Supply Improv., Salem, Mass. Adv. Feb. 20, 27.	Feb. 20
Mar. 11.	Pump, Atlantic City, N. J. Adv. Feb. 27.	Feb. 27
Mar. 12.	**Pipe, Etc., Royal Oak, B. C.**	**Feb. 6**
Mar. 12.	Pumping Engine, Chicago, Ill. Adv. Feb. 27.	Feb. 27
Mar. 15.	**Pumps, Spokane, Wash.**	**Feb. 13**
Mar. 16.	Pumping Equipment, Lyons, Neb.	Feb. 27
Mar. 18.	Pumping Station, Toledo, O. Adv. Feb. 20.	Feb. 20
Mar. 23.	Contract 123, New York, N. Y. Adv. Feb. 27.	Feb. 27
Mar. 24.	Pumping Engine, Perth Amboy, N. J. Adv. Feb. 20.	Feb. 20
Apr. 13.	Valves, Toronto, Ont. Adv. Feb. 20, 27.	Feb. 20

SEWERAGE AND SEWAGE DISPOSAL.

Mar. 2.	Sisseton, S. D.	Feb. 13
Mar. 2.	Upper Darby, Pa. Adv. Feb. 20, 27.	Feb. 20
Mar. 2.	New York, N. Y.	Feb. 27
Mar. 2.	Toronto, Ont.	Feb. 27
Mar. 3.	Philadelphia, Pa.	Jan. 30
Mar. 3.	Lyons, N. Y. Adv. Feb. 13, 20.	Feb. 13
Mar. 3.	Anacortes, Wash.	Feb. 27
Mar. 3.	Long Beach, Cal.	Feb. 27
Mar. 4.	Newark, O.	Feb. 27
Mar. 4.	Ft. Wayne, Ind.	Feb. 27
Mar. 4.	Branford, Ont.	Feb. 27
Mar. 5.	**Philadelphia, Pa.**	**Jan. 30**
Mar. 6.	Columbus, O.	Feb. 20
Mar. 8.	East View, O.	Feb. 13
Mar. 8.	Parkesburg, Pa. Adv. Feb. 20.	Feb. 20
Mar. 8.	Kent, O.	Feb. 27
Mar. 9.	Granville, O.	Feb. 20
Mar. 10.	Baltimore, Md. Adv. Feb. 20, 27.	Feb. 20
Mar. 10.	Mason City, Ia.	Feb. 27
Mar. 17.	Butte, Mont.	Feb. 20
Mar. 17.	Brooklyn, N. Y.	Feb. 27
Mar. 22.	Enterprise, Ore.	Feb. 20
Mar. 23.	Kinston, N. C. Adv. Feb. 27.	Feb. 27

BRIDGES.

Mar. 2.	**Illinois**	**Jan. 30**
Mar. 2.	La Conner, Wash.	Feb. 20
Mar. 2.	Tyndall, S. D.	Feb. 20
Mar. 2.	McArthur, O.	Feb. 20
Mar. 2.	Cleveland, O.	Feb. 20
Mar. 2.	Colusa, Cal.	Feb. 27
Mar. 2.	Mason City, Ia.	Feb. 27
Mar. 3.	**Illinois**	**Jan. 30**
Mar. 3.	Ft. Monroe, Va. Adv. Feb. 6 to 27.	Feb. 6
Mar. 3.	Superior, Wis.	Feb. 6
Mar. 3.	Nelson, Neb.	Feb. 13
Mar. 3.	Mt. Holley, N. J. Adv. Feb. 20.	Feb. 20
Mar. 4.	Lancaster, O.	Feb. 27
Mar. 5.	Canton, O.	Feb. 20
Mar. 5.	Wagontown, Pa.	Feb. 27
Mar. 5.	Albany, Pa.	Feb. 27
Mar. 9.	**Illinois**	**Jan. 30**
Mar. 9.	Owatonna, Minn.	Feb. 27
Mar. 12.	Calgary, Alta.	Feb. 27
Mar. 15.	Cumberland, R. I. Adv. Feb. 13.	Feb. 13
Mar. 15.	Everett, Wash.	Feb. 27
Mar. 15.	Broughton, Ill.	Feb. 27
Mar. 15.	Lima, O.	Feb. 27
Mar. 16.	**Illinois**	**Jan. 30**
Mar. 17.	North Platte, Neb.	Feb. 20
Mar. 22.	Everett, Wash.	Feb. 27

PAVING AND ROADS.

Mar. 1.	Bonds, Starkville, Miss. Adv. Feb. 13, 20.	Feb. 13
Mar. 1.	Mt. Holly, N. J. Adv. Feb. 20.	Feb. 20
Mar. 2.	**Bonds, Jellico, Tenn.** Adv. Feb. 6 to 27.	**Feb. 6**
Mar. 2.	Wilkesbarre, Pa.	Feb. 13
Mar. 2.	Sanford, N. C.	Feb. 20
Mar. 2.	Indiana	Feb. 20
Mar. 2.	Stockton, Cal.	Feb. 20
Mar. 2.	Pittsburgh, Pa. Adv. Feb. 20.	Feb. 20
Mar. 2.	New Brighton, S. I., N. Y.	Feb. 27
Mar. 2.	Davenport, Wash.	Feb. 27
Mar. 2.	Omaha, Neb.	Feb. 27
Mar. 2.	Massachusetts	Feb. 27
Mar. 2.	Columbus, O.	Feb. 27
Mar. 2.	Indiana	Feb. 27
Mar. 3.	Clarksdale, Miss.	Feb. 20
Mar. 3.	Baltimore, Md.	Feb. 27
Mar. 3.	Louisville, Ky.	Feb. 27
Mar. 3.	Port Townsend, Wash.	Feb. 27
Mar. 3.	Kalama, Wash.	Feb. 27
Mar. 3.	Tama, Ia.	Feb. 27
Mar. 3.	East Carnegie, Pa.	Feb. 27
Mar. 3.	Cleveland, O.	Feb. 27
Mar. 4.	Springfield, Mass.	Feb. 27
Mar. 4.	Buffalo, N. Y.	Feb. 27
Mar. 4.	Newark, O.	Feb. 27
Mar. 4.	Superior, Wis.	Feb. 27
Mar. 4.	Bellevernon, Pa.	Feb. 27
Mar. 4.	Newark, N. J.	Feb. 27
Mar. 4.	Rushville, Ill.	Feb. 27
Mar. 5.	**Watertown, N. Y.**	**Feb. 20**
Mar. 5.	Bremond, Tex.	Feb. 27
Mar. 5.	Roselle Park, N. J.	Feb. 27
Mar. 5.	El Monte, Cal.	Feb. 27
Mar. 5.	St. Louis, Mo.	Feb. 27
Mar. 5.	New York, N. Y.	Feb. 27
Mar. 5.	Mt. Gilead, O.	Feb. 27
Mar. 6.	Rock Crusher, Reamstown, Pa.	Feb. 20
Mar. 6.	Columbus, O.	Feb. 20
Mar. 6.	Brookville, Fla.	Feb. 27
Mar. 8.	East View, O.	Feb. 13
Mar. 8.	Bellingham, Wash.	Feb. 20
Mar. 8.	Indiana	Feb. 20
Mar. 8.	Pecos, Tex.	Feb. 20
Mar. 8.	Moorestown, N. J.	Feb. 27
Mar. 9.	Watertown, Wis.	Feb. 27
Mar. 9.	Clinton, Ia.	Feb. 27
Mar. 10.	Angola, Ind. Adv. Feb. 20 to 27.	Feb. 20
Mar. 10.	Cleveland, O.	Feb. 20
Mar. 10.	Missoula, Mont.	Feb. 27
Mar. 11.	Woonsocket, R. I. Adv. Feb. 27.	Feb. 27
Mar. 12.	Wilkesbarre, Pa.	Feb. 13
Mar. 12.	Davenport, Wash.	Feb. 20
Mar. 12.	Ohio	Feb. 27
Mar. 12.	Indiana	Feb. 27
Mar. 15.	Mt. Gilead, O.	Feb. 20
Mar. 15.	Mansfield, O.	Feb. 20
Mar. 15.	Steelton, Pa. Adv. Feb. 27.	Feb. 27
Mar. 15.	Oneonta, N. Y.	Feb. 27
Mar. 15.	Redwood, Cal.	Feb. 27
Mar. 15.	Everett, Wash.	Feb. 27
Mar. 16.	Philadelphia, Pa. Adv. Feb. 27.	Feb. 27
Mar. 22.	New Brunswick, N. J.	Feb. 20
Mar. 23.	Winona, Minn.	Feb. 27
Mar. 23.	Kinston, N. C. Adv. Feb. 27.	Feb. 27

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Mar. 1.	Revetment, New London, Conn. Adv. Jan. 30 to Feb. 20.	Jan. 23
Mar. 2.	Steel Flue Flats, Cincinnati, O. Adv. Jan. 30 to Feb. 20.	Jan. 30
Mar. 2.	Levee Work, Linton, Ind.	Feb. 20
Mar. 3.	Dredging, Port Aransas, Tex. Adv. Feb. 6 to 27.	Feb. 6
Mar. 3.	Ditches, Tecumseh, Okla.	Feb. 20
Mar. 3.	Ditch, Clarion, Ia.	Feb. 27
Mar. 4.	Drainage Work and Ditches, Northwood, Ia.	Feb. 27
Mar. 4.	Drainage Work, Walkerville, Mich.	Feb. 27
Mar. 4.	Ditches, Jersey City, N. J.	Feb. 27
Mar. 5.	Drainage, Elbow Lake, Minn.	Feb. 27
Mar. 6.	Drainage, Bay City, Tex.	Feb. 20
Mar. 6.	Ditch, Ft. Wayne, Ind.	Feb. 27
Mar. 6.	Drainage, Racine, Wis.	Feb. 27
Mar. 8.	Pier Work, Philadelphia, Pa.	Feb. 27
Mar. 9.	Dredging, Wilmington, N. C. Adv. Feb. 13 to 27.	Feb. 13
Mar. 9.	Ditches, Etc., Edna, Tex.	Feb. 27
Mar. 10.	Canal Excav., Grand Junction, Colo. Adv. Feb. 6.	Feb. 6
Mar. 10.	River Bank Protection, St. Louis, Mo.	Feb. 20
Mar. 10.	Reclamation Work, Payson City, Utah.	Feb. 20
Mar. 11.	Excavator, Atlantic City, N. J. Adv. Feb. 27.	Feb. 27
Mar. 13.	Ditch Work, Owatonna, Minn.	Feb. 27
Mar. 15.	Pump. Plant for Lock, Seattle, Wash. Adv. Feb. 6 to 20.	Feb. 6
Mar. 15.	Dike, Newark, N. J.	Feb. 27
Mar. 16.	Jetty and Dike Wk., Galveston, Tex. Adv. Feb. 20, 27.	Feb. 20
Mar. 18.	Dredging, Hartford, Conn.	Feb. 27
Mar. 19.	Dredging, Charleston, S. C. Adv. Feb. 20.	Feb. 20
Mar. 26.	Dredge, Duluth, Minn. Adv. Feb. 27.	Feb. 27

PUBLIC BUILDINGS AND SCHOOLS.

Mar. 1.	Rome, N. Y. Adv. Feb. 13, 20.	Feb. 13
Mar. 2.	Columbus, O.	Feb. 13
Mar. 2.	Trenton, N. J. Adv. Feb. 20, 27.	Feb. 20
Mar. 2.	Fall River, Mass.	Feb. 20
Mar. 3.	Hudson, O.	Feb. 13
Mar. 3.	Rittman, O.	Feb. 27
Mar. 4.	Newark, N. Y.	Feb. 13
Mar. 4.	Worthington, O.	Feb. 13
Mar. 4.	Washington C. H., O.	Feb. 20
Mar. 5.	Seattle, Wash.	Feb. 20
Mar. 5.	Prince Frederick, Md.	Feb. 20
Mar. 5.	Hammond, Ind.	Feb. 27
Mar. 6.	Lawton, Okla.	Jan. 9
Mar. 6.	Prince Frederick, Md.	Feb. 13
Mar. 6.	Johnston, Ia.	Feb. 20
Mar. 6.	Beaver Falls, Pa.	Feb. 27
Mar. 6.	New York, N. Y.	Feb. 27
Mar. 8.	Atchison, Kan.	Feb. 13
Mar. 8.	Ft. H. G. Wright, N. Y. Adv. Feb. 13 to 27.	Feb. 13
Mar. 8.	Jamestown, N. D.	Feb. 20
Mar. 8.	Clermont, Fla.	Feb. 27
Mar. 8.	Kansas City, Mo.	Feb. 27
Mar. 8.	Long Island City, N. Y.	Feb. 27
Mar. 8.	Philadelphia, Pa.	Feb. 27
Mar. 10.	Millersburg, Ia.	Feb. 27
Mar. 11.	Pittsburgh, Pa. Adv. Feb. 6, 13.	Feb. 6
Mar. 15.	Fairmont, W. Va.	Feb. 6
Mar. 15.	Utica, N. Y.	Feb. 13
Mar. 15.	Greenfield, Mass.	Feb. 13
Mar. 15.	East St. Louis, Ill.	Feb. 13
Mar. 15.	Lincolnton, Ga.	Feb. 27
Mar. 15.	Greenville, Miss.	Feb. 27
Mar. 15.	St. Catharines, Ont.	Feb. 27
Mar. 16.	Dayton, O.	Feb. 27
Mar. 16.	Delaware, O.	Feb. 27
Mar. 17.	West Austintown, O.	Feb. 27
Mar. 18.	Rocky Ridge, O.	Feb. 27
Mar. 22.	Brattleboro, Vt.	Feb. 6
Mar. 22.	Greeley, Colo. Adv. Feb. 20.	Feb. 20
Mar. 22.	Everett, Wash.	Feb. 20
Mar. 23.	Willoughby, O.	Feb. 27
Mar. 23.	Des Moines, Ia.	Feb. 20
Mar. 25.	Pendleton, Ore.	Feb. 6
Mar. 29.	Smyrna, Del.	Feb. 20
Apr. 2.	Plainfield, N. J. Adv. Feb. 27.	Feb. 27
Apr. 6.	Live Oak, Fla.	Feb. 27

PRIVATE BUILDINGS.

Mar. 5.	Emporia, Kan.	Feb. 13
Mar. 10.	Lynn, Mass.	Feb. 20
Mar. 25.	Wilmington, Del.	Jan. 9

MISCELLANEOUS.

Mar. 2.	Street Signs, Waterbury, Conn.	Feb. 27
Mar. 3.	Cement, Seattle, Wash.	Feb. 20
Mar. 5.	Cement, Winnipeg, Man.	Feb. 20
Mar. 6.	Street Cleaning, Joliet, Ill.	Jan. 23
Mar. 10.	Engines and Compressor, Ketchikan, Alaska	Feb. 6
Mar. 11.	Elevators, Etc., Pittsburgh, Pa.	Feb. 6
Mar. 11.	Broken Stone, Philadelphia, Pa. Adv. Feb. 20, 27.	Feb. 20
Mar. 13.	**Foundation for Radio Tower, Washington, D. C.**	**Jan. 30**
Mar. 16.	Coal Handling Apparatus, Boston, Mass.	Feb. 27

★*Items marked thus give the names of parties awarded contracts.*

New Construction Activities

Steel orders during the month of February seem to have decreased about 20 to 25 per cent as compared with January. Contracts for 175,000 tons of rail, 4356 cars and only 3500 tons of bridge work were placed last month by the railroads. In spite of this, although the shipments of finished steel products during the month increased about 15 per cent, unfilled orders of the United States Steel Corporation seem to have increased by 100,000 tons. Building and bridge orders for structural steel during the month totaled only 34,000 tons, including bridge work ordered by the railroads. Bids have been submitted, however, on two or three times this tonnage, but several large contracts are held in abeyance. Furthermore bids will be received early this month for work requiring an additional 15,000 tons of structural steel. Steel production, on the whole, is being well maintained at about 65 per cent of capacity, and several more furnaces have been put in operation during the month. Export business is still hampered by high freight rates, scarcity of boats and blockade-zone uncertainties. Inquiry for steel for shrapnel shells and wire is nevertheless very active. Publicly financed construction work, especially paving and highway work, has shown increasing healthy activity since the first of the year, and while private construction work is still very slack some improvement may be looked for this spring.

Buildings

The contract for a sixteen-story office building at Broadway and Twenty-fourth Street, New York City, was let last week. School buildings again occupy the most prominent place in the new work noted. Bids were opened in Toledo for a $200,000 school. Bids totaling about $187,000 were received for erecting the biology building at the University of Minnesota. At Fresno, Cal., a contract for erecting a group of buildings for the Normal School was awarded at a little under $300,000. The Northern National Bank Building, contract for which was reported awarded at Toledo, will cost $200,000. Bids are desired on good size school buildings at Providence, R. I.; McKeesport, Pa., and Dayton, Ohio. It is reported that the Pittsburgh Board of Education will soon let a $265,000 contract. The Governor of Washington has approved the appropriation of $150,000 for a new building at the University of Washington. Among the notices of prospective work a little more variety is in evidence. Plans have been prepared for a $1,000,000 hotel in Cleveland. Plans have also been completed for a $150,000 court house at Walla Walla, Wash. It is reported that the Northwestern Railroad contemplates improving its Milwaukee depot at a cost of $600,000. A chemical company is reported to have purchased a site in Brooklyn for erecting a plant which will consist of twenty-three buildings. Plans are being prepared for a $175,000 addition to a manufacturing plant at Mercer, Pa. A ten-story fireproof building to cost $250,000 is proposed for the Woman's Board of Trade in Boston. At St. Paul a $200,000 elevator is projected.

Bridges, Roads and Paving

A $480,000 bridge contract in track elevation work at Philadelphia was awarded last week. A contract was also awarded for reconstructing a railway bridge over the Red River at Shreveport, La. Bids are desired at Fredericton, N. B., for constructing both the superstructure and substructure of a large highway bridge. Four piers and two abutments will be necessary, and five spans of considerable length will be required. Bids are desired on a number of smaller bridges. Paving and road work continue very active, especially bids desired. A contract was let last week at $43,780 for constructing the Mystic Valley Parkway at Medford, Mass. At Kankakee, Ill., a $54,000 contract was awarded and at Emmetsburg, Iowa, another contract was awarded at $102,000. Contracts totaling more than $135,000 have been awarded at Canton, Ohio. Contracts awarded on Illinois State road work last week totaled $98,000. At Huntington Beach, Cal., and Riverside, Cal., bids were opened on good sized paving contracts. Contracts for a good deal of paving work have also been awarded in Cleveland. Work on the Maine State highways will be ready for letting about April 1. Bids are desired until March 23 for constructing 54 mi. of New York State highways. Bids are desired on further State road work in Maryland, including oiling seven sections of State highways, for which it is estimated a million and a quarter gallons of oil will be needed. Bids are desired on considerable paving and grading work in New York City. Long Island City has advertised 17,000 sq. yd. of granite block pavement and other paving work. Twenty miles of road work will be let March 10 at Delaware, Ohio. One hundred and fifty thousand dollars worth of grading and other work will be let April 6 in Spokane. Bids are desired on 26 mi. of road construction near Covington, La. Other paving work is advertised at Superior, Wis., and Washington, Iowa. It is reported that $200,000 worth of sidewalks will be built in Boston. It is reported that the Washington State Legislature has appropriated more than $3,200,000 to aid in road work. An appropriation of $78,000 has been made for paving work at Dayton, Ohio.

Sewers and Waterworks

A contract for 1000 tons of cast iron pipe was awarded at Youngstown, Ohio, at $22.40 per ton. Contracts for pipe, castings, cement, etc., have been awarded at Morehead City, N. C. Bids are desired for furnishing materials and putting in water mains on which $42,900 security will be required by New York City. Bids are desired for cast-iron pipe and seamless steel tubing at Cleveland. Contracts for materials for a waterworks system at Woodruff, S. C., will be let March 9. Bids are desired for constructing a waterworks system at Burton, Kan. Bids are desired on filtration plants at Billings, Mont., and Fort Hope, Ontario, Can. Press reports state that bids will soon be asked on the construction of a duplicate water system at Toronto, which will cost $6,667,000. A $334,000 filtration plant is being designed for East Liverpool, Ohio. The lowest bid opened on the Long Island City sewer work was for $46,000. The contract was awarded at Philadelphia for $151,000 for relocating sewers preparatory to rapid transit construction, and two other sewer contracts let in Philadelphia totaled $200,000, while the lowest bid on another Philadelphia sewer contract was $58,000. Low bids on the first two sections of the Milwaukee intercepting sewers totaled over $481,000. Bids are desired on 15,000 ft. of sewer at Burlington, Iowa. Osborne, Kan., has advertised a sewerage system, including 22,000 ft. of pipe and a septic tank. It is reported that Atlanta, Ga., will spend $359,000 for sewer extensions. Plans are being prepared for a 23-mi. sewer system and disposal plant at Pitman, N. J. The City Council of Columbus, Ohio, has appropriated $275,000 to improve the sewage treatment works there. Baltimore has completed plans for a $100,000 sanitary sewer. The State Board of Health has ordered the city of Cleveland to have in operation a new sewage disposal plant by Feb. 13, 1918.

Miscellaneous

Estimates for grade elimination work at Portland, Ore., indicate an expenditure of $750,000. The incorporation of two new railroad companies, one at Minneapolis and the other at Radford, Va., is reported. The Norfolk and Western Railroad has been authorized to construct about 37 mi. of line in Virginia. It is reported that the Dominion Government has appropriated $1,650,000 for completing a breakwater at Victoria, B. C., and a drydock at Esquimalt. A $100,000 pier contract was awarded at Venice, Cal. The lowest bid for the Dorchester tunnel on the Boston subway was $554,750. The lowest bid for an additional contract on the West Forty-sixth Street pier, New York City, was $244,449. A contract for building a breakwater has been awarded at $250,000 at Fort Williams, Ontario. The Public Service Commission for the First District of New York approved the award of a contract for constructing nine stations on the Sea Beach line at $331,000. No bids were opened for the construction of section 4 of routes 4 and 36, a part of the Broadway-Fourth Avenue Rapid Transit Railroad in Manhattan, and the date of letting has been indefinitely postponed. This action was due to the recent decision of the Court of Appeals on the alien labor law.

Contracting News

Of Special Interest to Engineers, Contractors, Builders and Manufacturers of Engineering and Building Supplies

WATERWORKS.

Items Arranged Geographically

Fitchburg, Mass.—Following are the 3 lowest bids opened Mar. 2 by Bd. Water Comrs. (Thos .P. Sheldon, Pres.) for constructing Ashby reservoir: E. W. Foley Contr. Co., 71 Wall St., New York, $99,-105; International Constr. Co., Boston, $104,994; Hassam Paving Co., Worcester, $107,135. Metcalf & Eddy, Engrs., 14 Beacon St., Boston.

Worcester, Mass.—The City Council, Feb. 24, passed loan order for $85,000 for pipe and construction work for the Water Dept. F. H. McClure, City Engr.

Jamestown, N. Y.—Bids reported desired until Mar. 11 by Bd. Water and Lighting Comrs. for approximately 40 tons 8-in. and 110 tons 6-in., Class C, bell and spigot c.-i. pipe, and 7000 lbs. special castings.

New York, N. Y.—Bids desired until Mar. 8 by Wm. Williams, Comr. Water Supply, Gas and Electricity, New York, for furnishing, delivering and laying water mains and appurtenances in Southern Boule., Boro. Bronx. Security $12,000. Also furnishing, delivering and laying water mains and appurtenances in Buckley, Goodrich, Marion, Meadow, Bank, Grosvenor, Miller, High and a number of other streets, Boro. Queens. Total security $27,000. Also furnishing, delivering, unloading, stacking and storing c.-i. pipe, special and valve box castings, valves and double nozzle hydrants, Boro. Manhattan and Bronx. Total security $3,900.

Bids desired until Mar. 11 by Wm. Williams, Comr. Water Supply, Gas and Electricity, for furnishing, delivering and laying a 12-in. water main across the East River from E. 104th St. to North Brother Island, and hauling and laying water mains and appurtenances in E. 104th St. and on North Brothers' Island, Boro. Bronx. Security, $8,000.

Cedargrove, N. J.—All bids opened Feb. 24 by Com. on Pub. Bldgs., Co. Bd. Chosen Freeholders, Newark (Aug. L. Lacombe, Chmn.), for furnishing material and installing an addition to the water supply system at Essex County Hospital, Overbrook, Cedargrove Township, including artesian wells, centrifugal pumps, air compressor, piping, etc., have been rejected, being in excess of the appropriation, which is $10,000. Plans will be modified. Runyon & Carey, Engrs., 845 Broad St., Newark.

East Orange, N. J.—Bids desired until Mar. 8 by A. A. Reimer, Secy. Bd. Water Comrs., for pumps and condensers.

★**Hawthorne, N. J.**—Contracts awarded by Boro. Comrs. to R. D. Wood & Co., Philadelphia, Pa., to supply 2174 tons c. i. pipe for proposed water system at $20.23 per ton; and to Geo. B. Richardson, Ridgewood, to furnish 168 hydrants at $23 ea. and lay 14-in. pipe at 45 cts.; 12-in., 35 cts.; 8-in., 27 cts. and 6-in., 20 cts. per ft. Engineer, H. J. Harder, of Paterson.

Scottsdale, Pa.—Chester & Fleming, Pittsburgh, are preparing an appraisal of the water works system, which will be submitted to the borough officials in the near future.

★*Items marked thus give the names of parties awarded contracts.*

★**Philadelphia, Pa.** — Contract awarded to Cantrell Constr. Co., Goff Bldg., Camden, N. J., for 8775 ft. conduit for the city at $8,785.

★**Kensington, Md.**—Contract has been awarded to Cantrell Constr. Co., Philadelphia, Pa., for constructing water works (bids opened Feb. 20). They bid for laying 2-in. pipe, 44 cts.; 4-in. 50 cts.; 6-in., 65 cts.; 8-in., 84 cts.; a 60,000-gal. tank and tower, $3,075, etc.; total, including valves, hydrants, etc., $22,239. Other bids: J. H. Starkey, Rockville, $24,091; M. & T. E. Farrell, Westchester, Pa., $24,755; J. I. Dick, Scottdale, Pa., $24,454; Martin & Miller, Caldwell, N. J., and Bruno Pizzimento, Seneca Falls, Associated, $23,101. Engineer, Herbert W. Hatton, Equitable Bldg., Wilmington, Del.

Wilmington, Del.—Bids reported desired until Mar. 9 by Levy Court, for 20 in. water main from 3d St. bridge to Thomas and Heald Sts. Jas. Wilson, County Engr.

Dayton, Va.—Citizens reported to have voted $24,500 bonds for water works, sewers and an electric light plant.

Harrisonburg, Va.—J. G. Yancey, Jr., City Recorder, writes that the proposed filtration plant will probably be constructed by force account from plans of N. W. Davis, of Harrisonburg.

Sheperdstown, W. Va.—Council reported to have granted Randolph Stalnaker and others franchise for water works.

★**Morehead City, N. C.**—Contracts have been awarded as follows (on bids opened Feb. 19) for water and sewer materials: sewer pipe, Pomona Terra Cotta Co., Pomona, N. C.; sewer castings, Southern Iron & Equipment Co., Atlanta, Ga.; brick, New Bern Brick Co., New Bern, N. C.; cement, Carolina Portland Cement Co., Charleston, S. C.; lead, jute, etc., Crane Co., Atlanta, Ga.; pipe, U. S. Cast Iron Pipe Co., Chattanooga, Tenn.; hydrants and valves, Columbian Iron Works, Chattanooga, Tenn.; galvanized pipe, etc., Hyman Supply Co., New Bern, N. C. Engineers, J. B. McCrary & Co., Atlanta, Ga.

Woodruff, S. C.—Bids desired until Mar. 9 by J. E. Ezell, Town Clk., for furnishing material for water works and sewerage system, to include approximately 5750 ft. 8 in. Class B, 13,600 ft. 6 in. Class B, 348 ft. 8 in. Class A pipe, 11,000 ft. 1½ in. galvanized c. i. pipe, 6 tons special castings, 40 hydrants, 75,000 gal. tank on 85 ft. tower, about 22,000 lbs. steel reinforcement, 24,600 10, 8 and 6 in. t. c. sewer pipe, 149,000 bricks, 237 tons stone, 521 bbls. cement, etc. The J. B. McCrary Co., Engrs., Third Natl. Bank Bldg., Atlanta, Ga.

Hawkinsville, Ga.—Citizens reported to have voted $35,000 bonds for enlarging school and extensions of water and sewer systems.

De Ridder, La.—Citizens reported to have voted $60,000 bonds to take over water plant and extend the system; also install a sewer system.

Vivian, La.—Bids desired until Mar. 16 for $35,000 bonds issued for the purpose of constructing a water works system. For further information address J. D. Houston, Town Clk.

Covington, Ky.—Comr. Howk, Supervising Engineer Hornung, and City Engineer Meiners have completed survey of route of emergency main from Ft. Thomas along Three Mile Creek to a point on Licking River, where they intend to cross that stream and connect with the Covington system.

★**Hodgenville, Ky.**—Contract reported awarded to J. W. and A. Snyder, of Taylorsville, for construction of water works at $14,300.

Newport, Ky.—Comr. Pub. Safety Chris Ebert, of Newport, is advocating that the officials of Covington and Newport combine and erect a municipal light and water plant.

Cleveland, O.—Lowest bid opened Feb. 24 by Commissioner Purchases and Supplies for constructing coagulant house superstructure and miscellaneous work for filtration plant, Contr. 5, reported submitted by the Masters & Mullen Constr. Co., at $38,905.

Bids are desired until Mar. 12 by A. R. Callow, Comr. Purchases and Supplies, for c.-i. pipe, special and miscellaneous castings, also valves, for Dept. Pub. Utilities, Div. of Water.

Bids desired until Mar. 17 by Commissioner of Purchase & Supplies, 511 City Hall, for constructing a filtered water reservoir, Contract No. 6, advertised in Engineering Record.

Columbus, O.—Council has passed ordinance providing for appropriation of $100,000 for water main line extension and $10,000 for fire hydrants and material.

Dover, O.—City Council has passed ordinance providing for issue of $13,400 bonds for enlargement of the water works, including a 3,500,000-gal. pump and other equipment necessary. L. M. Williams, Mayor.

East Liverpool, O.—Chester & Fleming, Pittsburgh, Pa., are preparing plans and specifications for a 6,000,000 gal. mechanical filter plant, new pumping station, and additional force mains at an estimated cost of $334,000. Work will be ready for bids about May 1.

Napoleon, O.—The Bd. of Pub. Affairs has engaged Wm. G. Clark, of Toledo, consulting engineer, to prepare plans for the filtration plant to have a daily capacity of 2,000,000 gals.

Toledo, O.—Bd. of Public Service reported to have rejected all bids recently received for submarine water main across Maumee River; cost, $16,800; also rejected bids for 3000 curb boxes.

★**Youngstown, O.** — Contract awarded Feb. 18 for 1000 tons 6, 8, 12 and 14-in. c. i. pipe to U. S. Cast Iron Pipe & Fdry. Co., Pittsburgh, Pa., at $22.40 per ton. Other bids: Massillon Iron & Steel Co., Massillon, $22.75 per ton; R. D. Wood & Co., Philadelphia, Pa., $23.25 per ton.

An ordinance authorizing a $175,000 bond issue for improvements at Milton reservoir and the acquisition of 65 acres of land will shortly be introduced in City Council; the money to be used for building additional roads and improving the roads now located at reservoir site, and purchasing the additional acreage.

New Albany, Ind.—Local press reports state that the New Albany Water Co. will install a filtration plant.

Rushville, Ind.—Plans have been completed by C. H. Hurd, of Indianapolis, for construction of 750,000-gal. reservoir. A. H. Mahin, Supt. Water Works.

Highland Park, Mich.—Wm. Patterson, Supt. Water Wks., has asked Council for an appropriation of $40,000 to complete the water system.

Berwyn, Ill.—Bids desired until Mar. 16 by Bd. Local Improv. (Oscar N. Lindahl, Secy.) for constructing c.-i. water supply pipe in 64th Ave. and other streets. Arthur R. Wolfe, Engr., 39 S. La Salle St., Chicago.

Sparta, Ill.—Water bonds in the sum of $25,000 reported sold.

Milwaukee, Wis.—Bids reported desired until Mar. 10 by Percy Braman, Deputy Comr. Pub. Wks., for laying water mains during 1915.

Bids reported desired until Mar. 15 same place as above for furnishing 200 6 in., 10 8 in., 10 12 in., and 2 16 in. gate valves.

Oshkosh, Wis.—Bids reported desired until Mar. 11 by Bd. Pub. Wks. for furnishing Water Dept., c.-i. pipe, special gate valves, hydrants, etc.

Oshkosh, Wis.—Bids reported desired until Mar. 11 by Bd. Pub. Wks. (R. A. Hollister, Chmn.,) for furnishing 9,600 ft. 4 and 6 in. c. i. pipe, specials, etc.

Wauwatosa, Wis.—Bids desired until Mar. 13 by A. V. Bingham, City Clk., for drilling an artesian well, depth varying from 1,300 to 1,600 ft.; bore to be 12 in. through Cincinnati shale and 8 in. to the bottom. F. A. Torkelson, City Engr.

Yale, Ia.—Bids desired until Mar. 15 by L. M. Swindler, Town Clk., for constructing a water works system.

Duluth, Minn.—City Council reported to be considering the following expenditures for the coming year: brass fittings, $2,000; lead and iron fittings, $3,000; c. i. water and gas pipe, $30,000; pig lead, $4,000; Tischer's Creek Bridge on 1st St., $8,000; reinforced concrete reservoir in Woodland, $15,000, and gas and water extensions, $30,000.

★**Fairmont, Minn.** — Contract awarded Feb. 25 for constructing 12,200 ft. 6-in. water mains to J. T. Rea, Tracy, at $10,000. H. B. Tuttle, City Clk.

Burrton, Kan.—Bids reported desired until Mar. 10 for constructing water works system, consisting of 14,000 ft. 8-in., 1600 ft. 6-in., 18,600 ft. 4-in. c.-i. pipe, 5250 ft. 2-in. galvanized pipe, 40 hydrants, 30 gate valves, 50,000-gal. tank on 120-ft. tower, brick power house, 2 6 x 8 deep well triplex pumps, etc. W. B. Rollins & Co., Engrs., Midland Bldg., Kansas City, Mo. D. Carmichael, Mayor.

Kansas City, Kan.—Bonds in the sum of $36,000 reported sold for water works extensions.

McCune, Kan.—Bids reported desired until Mar. 20 for constructing deep wells and reservoir. Address City Clerk.

McCook, Neb.—Bids reported desired until Mar. 8 by L. H. Frank, Village Clk., for constructing water works.

Redfield, S. D.—Bids desired until Mar. 8 by State Bd. Charities and Correction at Rapid City for constructing a tower and water tank at State School and Home for Feeble-Minded at Redfield.

Billings, Mont.—Bids desired until Mar. 17 by L. E. Torrence, City Clk., for furnishing material and improving water works system. Separate bids desired as follows: Constructing extensions to water works distribution system; reinforced concrete settling basin, concrete construction for filters, brick filter house, etc.; equipping and erecting 6 1,000,000-gal. mechanical filter units; furnishing and erecting 1350-gal. turbine pump and 100-hp motor. Burns & McDonnell, Engrs., Scarritt Bldg., Kansas City, Mo.

Fromberg, Mont.—B. C. Lillis, of Billings, reported to have completed preliminary survey for water works, to cost $20,000, to be voted for at Spring election.

Phillipsburg, Mont.—City Council reported to have engaged C. H. Green & Co., Spokane, Wash., to prepare plans for water works improvements, to cost about $15,000.

Caruthersville, Mo.—Bids desired until Mar. 22 by J. M. McGinnis, City Clerk, for a 10-in. well, advertised in Engineering Record. Frank L. Wilcox, Consulting Engineer, Syndicate Trust Bldg., St. Louis.

Benton, Ark.—City Council reported to have adopted the plans of J. B. McCrary & Co., Atlanta, Ga., for water works and sewer system.

Dardanelle, Ark.—Bids desired Mar. 15 for extension of water works to include a pump of 300,000 gals. daily capacity and 3000 to 4000 ft. 6-in. c.-i. pipe. H. D. Evins, Supt. Water Wks.

Springdale, Ark.—City Council considering construction of water works and a sewer system. Fred. Reed, City Recorder.

Brenham, Tex.—State Attorney-General has approved a bond issue of $15,000 for water works improvements.

Groesbeck, Tex.—It is proposed to spend about $10,000 in water works improvements. J. W. Thompson, City Clk.

Magnolia Park (P. O. Houston), Tex.—Contract reported awarded Feb. 23 for furnishing material and constructing a system of water works to Hamilton Bros. Constr. Co., at $85,900. M. Griffin O'Neill & Sons, Engrs., Praetorian Bldg., Dallas.

Montrose, Colo.—P. W. Pinkerton, City Mgr., writes that bonds in the sum of $90,000 were sold Feb. 25, to be used for reconstructing and extending the water works.

Bellingham, Wash.—City Council contemplates construction of a high-pressure water reservoir to hold approximately 100,000,000 gals. on the hill near city limits near Geneva, at a cost of about $150,000.

Olympia, Wash.—W. J. Roberts, J. B. Blackwell and M. McQuinn have been appointed as committee by City Council to appraise the local water system; it is reported that improvements contemplated will cost about $100,000.

★**Seattle, Wash.**—Contract awarded by Bd. Pub. Wks. for laying water mains in 31st Ave. to L. R. Ellis, Central Bldg., at $10,175.

The Bd. of Pub. Wks. (A. L. Valentine, Chmn.) has approved plans for laying water mains on 5th Ave. W at a cost of $9,000.

Fairview, Ore.—Surveys and estimates reported completed and presented to City Council for construction of water works to cost about $25,000.

Ogden, Utah.—Washington Jenkins, City Engr., reported to be completing final survey for pipe line, through Ogden Canyon; cost about $100,000.

Port Hope, Ont.—Bids desired until Mar. 15 by R. Gray, Secy.-Treas., Water Comn., for work and materials for contracts as follows: Low lift centrifugal pumps, motors, oil engine, piping and erection of same. Venturi tubes, loss of head gauges, elevation gauges. Construction of 4 slow sand filters, pump house and pure water reservoir. C.-i. pipe and specials. Valve and valve boxes. F. W. Thorold Co., Ltd., Engrs., 2 Toronto St., Toronto.

Toronto, Ont.—Bids desired until Mar. 16 by T. L. Church (Mayor), Chmn. Bd. Control, for water tube boilers and mechanical stokers for main pumping station, advertised in Engineering Record.

Local press reports state that the Bd. of Control will probably soon call for bids for the construction of a duplicate water system at East Toronto; probable cost, $6,667,000.

Duncan, B. C.—City Commission reported to be investigating proposition to construct a water system bringing water a distance of 61 miles from Holt Creek.

SEWERAGE AND SEWAGE DISPOSAL.

Items Arranged Geographically

Lawrence, Mass.—Plans are being completed for constructing surface and sanitary sewer in Ward 5.

Lexington, Mass.—Plans are being prepared by McClintock & Woodfall, Boston, for 8½ miles of 8 to 20-in. pipe sewers, average depth 9 ft.; cost, $100,000. Geo. E. Briggs, Chmn. Sewer Com.

Brighton, N. Y.—Bids desired until Mar. 18 by Sewer Comrs., Sewer Dist. No. 1 (Robt. D. Wilson, Chmn., 20 Exchange St., Rochester), for constructing a disposal plant, consisting of settling tank, filter beds and sludge bed. Wm. S. Lozier, Engr., Cutler Bldg., Rochester.

Brooklyn, N. Y.—Bids were opened for removal of the temporary sewer from the 4th Ave. Subway, Brooklyn, between Hanson Pl. and Butler St., by the Public Service Comn., for the First Dist., Feb. 26, and the lowest bid submitted was the Norton & Gormon Co., 303 Douglas St., Brooklyn, at $15,198.

Corning, N. Y.—Bids desired until Mar. 16 by Wm. C. Drake, Supt. Pub. Wks., for 956 sq. yds. brick paving, 1852 lin. ft. 8-in. and 1653 lin. ft. 6-in. sanitary sewer, advertised in Engineering Record.

Dunkirk, N. Y.—Plans reported completed by W. H. Shalton, City Engr., for intercepting sewer system and a disposal plant with a seawall along practically all the lake front of city; cost about $75,000.

Long Island City, N. Y.—Lowest bid opened by Maurice E. Connolly, Boro. Pres., Feb. 26, for construction of sewer in Fulton St., Greenwood Ave., Chestnut St., Scott St. from Chestnut St., 4th Ward, Boro. of Queens, was submitted by Harry Britton, Richmond Hill, as follows: 254 lin. ft. 3-ft. 6-in. concrete sewer, $6.90; 250 lin. ft. 3-ft., $5; 280 lin. ft. 2-ft. 6-in., $4; 276 lin. ft. 18-in. vitr. salt glazed pipe sewer, $2.20; 2945 lin. ft. 12-in., $1.40; 3 lin. ft. 20-in., $2; 30 manholes, each $45; 11 single receiving basins, each $100; 1 double receiving basin, $160; 350 lin. ft. 12-in. vitr. salt glazed pipe for basin connections, $1; 2955 lin. ft. 6 in., $1; 35 spurs 24 in. long on concrete sewers, 40 cts.; 24 spurs on 18-in. vitr. salt glazed pipe sewer, $1.50; 185 spurs on 12-in., 60 cts.; 1 junction chamber, complete, at Stoothoff Ave. and Fulton St., $500; total, $13,882. Next 3 lowest bids: C. A. Meyers Contr. Co., $13,921; Evergreen Contr. Co., $14,322; J. L. Sigretto Co., $14,569.

For sewer on Hancock St., Graham and Stanford Ave., 1st Ward, Boro. Queens, submitted by A. A. Dumproof, as follows: 2489 lin. ft. 12-in. viti. salt glazed pipe sewer, $1.45; 231 lin. ft. 15-in., $1.90; 310 lin. ft. 18-in., $2.50; 21 manholes, each, $50; 2 single receiving basins, each, $150; 1 double receiving basin, $210; 65 lin. ft. 12-in. viti. salt glazed pipe for basin connections, $1.45; 20 lin. ft. 10-in., $1.45; 10 spurs on 18-in. viti. salt glazed pipe, $10; 7 spurs on 15-in., $7.60; 84 spurs on 12-in., $6.80; 25 cu. yd concrete exclusive of concrete shown on plan, $8; 1700 lb. extra reinforced steel exclusive of reinforcing steel shown on plan, 4 cts.; 1250 cu. yd. rock excav. and removed, $2.50; 210 lin. ft. 6-in. viti. salt glazed pipe for house connection drains, 80 cts.; 200 ft. B. M. timber for foundation furnished and laid, $35; 300 lin. ft. piles below caps, furnished, driven and cut off, 30 cts; 2000 ft. B. M. timber for bracing and sheet piling, $35; 1 chamber at Hancock St. and Vernon Ave., complete, $350; total, $11,309. Next 3 lowest bids: Green Constr. Co., $13,000; Evergreen Constr. Co., $13,938; Peace Bros., $13,974.

Mt. Morris, N. Y.—Following are 4 lowest bids opened Feb. 26 by Municipal Village Bd. for constructing 9 miles of pipe sewers and disposal works from plans of C. C. Hopkins, Cutler Bldg., Rochester.

Pipe sewers, Desiderio & Sattler, Rochester, $30,780; Alfred Gaffey, Syracuse, $34,028; John Petrossi Co., Rochester, $37,015; McCarthy & Wall, Mt. Morris, $38,941.

Disposal works, Albert Gaffey, Syracuse, $4,928; Burns Bros., New Castle, Pa., $5,000; Leary & Morrison, Rochester, $6,200; F. S. & A. Spoato, Syracuse, $6,499.

Niagara Falls, N. Y.—Bd. of Pub. Wks. has approved estimate of $196,000 for sewers to be constructed this year, as presented by F. S. Parkhurst, City Engr.

North Tonawanda, N. Y.—City Council reported to be considering construction to be used in rebuilding and reballasting of a trunk sewer to cost about $500,000.

Haddonfield, N. J.—It is reported that a new sewer will be constructed through Kings Highway at a cost of $17,000.

Oaklyn, N. J.—Citizens reported to have voted to issue $50,000 bonds for construction of sewer system.

Pitman, N. J.—Plans and specifications are being prepared by Remington & Vosbury, Camden, for a sewer system and disposal plant. It is estimated that there will be approximately 23 miles of sewers.

Seaside Park, N. J.—Plans completed by Remington & Vosbury, Camden, for sewers, pumping station and disposal plant, and forwarded to the State Bd. of Health, at Trenton, for approval.

★**Philadelphia, Pa.**—Contract has been awarded to Keystone State Constr. Co., for building sewer in Indiana Ave., between 3d and 7th Sts., at $121,000 and to Adolph Jafoli, for sewer between 7th and 10th Sts., at $79,000. (This is the Gunners Relief sewer, bids opened Feb. 4.)

★Following are the lump sum bids opened Feb. 23 by Dept. City Transit, Bourse Bldg., Henry H. Quimby, Ch. Engr., Room 754 Bourse Bldg., for reconstruction and relocation of sewers in Walnut St., Contract 10, preliminary to Rapid Transit subway construction. This sewer is 10 ft. 6 in. and 11 ft. diam., about 1615 ft. long (a) for the whole work, as shown on plans car traffic diverted, (b) whole work with car traffic maintained: Peoples Bros., Inc., 237 Commercial Trust Bldg., (a) $129,700, (b) $151,593 (awarded

★*Items marked thus give the names of parties awarded contracts.*

contract); Keystone State Constr. Co., 704-709 Pennsylvania Bldg., (a) $144,000, (b) $162,000; Jos. Perna, 334 N. 65th St., (a) $144,000, (b) $160,000; Robt. Lombardi, 600 Lincoln Bldg., (a) $157,000, (b) $195,000; Emilio Pascuzzi, 601 Lincoln Bldg., (a) $181,041, (b) $210,541; Richard P. Bennis, Chew and Price Sts., (a) $219,500, (b) $247,000.

Lowest bid opened same place as above on Feb. 26, for Contr. 11, which calls for sewer in Washington Sq., Walnut and Locust Sts., to be 9 ft. 6 in. diam., about 1074 ft. long, was submitted by Robt. Lombardi, Lincoln Bldg., at $58,400.

★Contract awarded for reconstructing Mantua Creek sewer to Patk. J. Lawler, of Bala, Pa., at $16,365 (bids for this work were opened Jan. 27).

West Chester, Pa.—Borough Engineer reported to be preparing plans for sanitary sewer system in the northeastern and southwestern sections of city.

York, Pa.—Local press reports state that the work of constructing disposal plant for the sanitary sewage system will be let in 2 contracts, the first to be for the general construction and the second to comprise all the machinery. Engineer, Geo. W. Fuller, of New York.

Baltimore, Md.—Plans reported completed by Calvin W. Hendrick, Ch. Eng. Sewer Comn., for construction of sanitary sewer in Southwest Baltimore, to cover district bounded by Pulaski St., Carrollton Ave., Hollins St. and the B. & O. Railroad; cost about $100,000.

Bids desired until Mar. 10 by Bd. of awards at office of City Register for constructing lateral sewers and house connections in Dist. No. 5-C, Sanitary Contr. 147, requiring approximately 53,415 lin. ft. 8 to 15-in. lateral sewers and 25,415 lin. ft. house connections.

★**Kensington, Md.**—Following are totals of bids opened Feb. 20 for constructing sewer system from plans of Herbert W. Hatton, Consulting Engr., 708 Equitable Bldg., Wilmington, Del.: Jas. H. Starkey, Rockville, $18,146; M. & T. E. Farrell, West Chester, Pa., $25,914; J. I. Dick, Scottdale, Pa., $21,174; Cantrell Constr. Co., Philadelphia, Pa., $17,514 (awarded contract); Martin & Miller, Caldwell, N. J., and Bruno Pizzimento, Seneca Falls, Associated, $17,980. Engineer's estimate $20,409.

★Following are unit prices of Cantrell Constr. Co., Philadelphia, Pa., the successful bidders:

1880 ft. 8-in. t.-c. pipe up to 4 ft. deep	$0.31
7185 ft. 8-in. t.-c. pipe 4 to 6 ft. deep	.36
7305 ft. 8-in. t.-c. pipe 6 to 8 ft. deep	.51
1160 ft. 8-in. t.-c. pipe 8 to 10 ft. deep	.68
100 ft. 8-in. t.-c. pipe 10 to 12 ft. deep	.87
1190 ft. 10-in. t.-c. pipe 4 to 6 ft. deep	.52
930 ft. 10-in. t.-c. pipe 6 to 8 ft. deep	.64
930 ft. 10-in. t.-c. pipe 8 to 10 ft. deep	.80
930 ft. 10-in. t.-c. pipe 10 to 12 ft. deep	1.00
150 ft. 10-in. c.-i. pipe 4 to 6 ft. deep	1.49
600 ft. 12-in. t.-c. pipe 4 to 6 ft. deep	.59
2000 ft. 12-in. t.-c. pipe 6 to 8 ft. deep	.69
2000 ft. 12-in. t.-c. pipe 8 to 10 ft. deep	.85
2000 ft. 15-in. t.-c. pipe 4 to 6 ft. deep	.86
2770 ft. 15-in. pipe 6 to 8 ft. deep	.89
2770 ft. 15-in. pipe 8 to 10 ft. deep	1.25
10 lampholes, each	8.00
5 flush tanks, each	100.00
600 vertical ft. of manholes, each	5.40
600 6-in. on 8-in. Y branches	.50
80 6-in. on 10-in. Y branches	.75
20 6-in. on 12-in. Y branches	.85

Dayton, Va.—See "Water Works."

Parkersburg, W. Va.—Bids desired until Mar. 25 by City Comrs. (W. H. Smith, Chmn.) for $200,000 bonds, issued for the purpose of paving, laying sidewalks, curbing or sewers in or upon certain streets and alleys.

Charlotte, N. C.—City Council reported to be considering the construction of a new trunk line sewer east of city. S. H. Lea, City Engr.

Woodruff, S. C.—See "Water Works."

Hawkinsville, Ga.—See "Water Works."

Atlanta, Ga.—Local press reports state that plans are being prepared by the Street Com. of Council and the Pub. Wks. Com. of Fulton County for street work to cost $328,000, and new sewers and sewer extensions to cost $359,000.

Macon, Ga.—Press reports state bids are desired by City Clerk until Mar. 16 for extension of sewers in Tybes Dist. including a septic tank.

★**Clearwater, Fla.**—Contract for constructing sewers (bids opened Feb. 17) have been awarded as follows: Sanitary sewers, to R. L. Davis, Tampa, at $15,133, and storm sewers, to Seminole Contr. Co., Sanford, Fla., at about $4,945. J. N. Drew, City Engr.

Pablo Beach, Fla.—J. B. McCrary Co., Empire Bldg., Atlanta, Ga., reported to have been engaged as engineers for the proposed sewer system and electric light plant, to cost about $35,000.

St. Augustine, Fla.—City Council reported to be considering construction of a sewer system.

De Ridder, La.—See "Water Works."

New Orleans, La.—Bids desired until Apr. 19 by Sewerage and Water Bd. (F. S. Shields, Secy.) for Contr. 72-D, additions to Drainage Pumping Station No. 2; Contr. 73-D, sluice gates for Drainage Pumping Station No. 2.

Cincinnati, O.—Bids desired until noon Mar. 8 by Director Pub. Service (Parke S. Johnson, Secy.) for constructing sewers in Winton Rd., Keenan, Spring Grove Aves. and right-of-way. (Winton Place Relief Sewers, Contr. No. 2.)

Cleveland, O.—City officials were given until Feb. 13, 1918, to cease pollution of Lake Erie, by building a sewage disposal plant at E. 149th St. and the lake front, in a formal order recently issued by State Board of Health.

Bids desired until Mar. 18 by A. R. Callow, Comr. Purchases and Supplies, for constructing a sewer in Dugway Brook from 800 ft. north of Primrose Ave. northeast to Helena Ave.

Columbus, O.—City Council has appropriated $275,000 to be used in improvement of sewage treatment works.

Columbus, O.—Bids desired until Mar. 16 by Geo. A. Borden, Dir. Pub. Service, for constructing sewers in Auburn and Dresden Aves. and various alleys, also for Clintonville storm sewer extension.

Kent, O.—Bids desired by City Clerk until Mar. 15 (extension of date from Mar. 8), for sewage disposal plant from plans of R. T. Bailey, Rockwell Bldg., Kent.

Upper Sandusky, O.—Bids desired until Mar. 19 by Jay Marguerat, Co. Aud., for furnishing material and constructing a sewage treatment plant and a sewage system at County Infirmary.

Warren, O.—See "Paving and Roadmaking."

Zanesville, O.—See "Paving and Road Making."

Gary, Ind.—W. J. Fulton, City Engr., estimates cost of constructing District Sewer 24, at $12,263 to include 918 ft. 36-in. concrete sewer, 580 ft. 18-in. double strength vitr. tile, 1208 ft. 15-in. standard vitr. tile, 1195 ft. 12-in., 200 ft. 10-in., 23 manholes, 5 catch basins, 1 inlet.

Chicago, Ill.—Representatives of the Union Stock Yards & Transit Co. and the packers have appointed a committee including C. A. Jennings, to act with the engineers of the Sanitary Dist. and the city of Chicago, to develop ways and means to clean up Bubbly Creek along general lines suggested by the results of experimental work carried on by Sanitary Dist.

Berwyn, Ill.—Bids desired until Mar. 16 by Oscar N. Lindahl, Secy. Bd. Local Improv., for constructing vitr. tile pipe sewer in S. 62d Ave. and other streets. Arthur R. Wolfe, Engr., 39 S. La Salle St., Chicago.

Milwaukee, Wis. — Following are bids opened Feb. 24 by Sewerage Comn. (T. Chalkley Hatton, Ch. Engr.) for constructing intercepting sewers and connections on both sides of the Milwaukee River, (a) Contract 9, (b) Contract 10. Jones & Erbeck, Pittsburgh, Pa., (a) $288,098, (b) $193,837; Jos. Hanreddy, Chicago, Ill., (a) $323,954, (b) $218,077; Oscar Daniels Co., New York, (a) $403,518, (b) $264,779; F. H. Nakielski, Milwaukee, (a) $532,843, (b) $276,988.

★Contract for Sect. 9 of the above sewer has been awarded to Jones & Erbeck; Contract No. 10 not yet let.

Burlington, Ia.—Bids reported desired until Mar. 18 by Robt. Kroppach, City Clk., for constructing Gnahn St. sewer and branches, to include 15,600 ft. 8 to 36 in. pipe. Bids desired on both concrete and vitr. pipe. H. G. Vollmer, City Engr.

Decorah, Ia.—F. M. Hughes, City Clk., writes it is proposed to construct a sewer system, but nothing definite has yet been done. A. Coffeen, City Engr.

Leon, Ia.—Bids desired until Mar. 18 for constructing sewers, requiring 54,062 ft. 6 to 12-in. vitr. clay pipe, 840 ft. 8, 10 and 12-in. c.-i. pipe, 117 manholes, 22 drop manholes and 178 ft. piers for iron pipe; also Imhoff disposal plant and filter beds. M. G. Hall, Engr., Centerville. S. G. Mitchell, City Clk.

Onawa, Ia.—Bids reported desired until Mar. 9 by Chas. L. Collins, City Clk., for constructing an outlet sewer, sewage disposal plant, etc., and for lateral sanitary sewers. Bruce & Standeven, Engrs., Omaha, Neb.

Sioux City, Ia.—T. S. Johnson, Asst. City Engr., reported to have completed plans for 2 sanitary sewers east and north of Morningside Ave.; estimated cost, $36,000.

St. Paul, Minn.—Bids reported desired until Mar. 8 by Aug. Hihenstein, City Purchasing Agt., for constructing sewers in various streets and avenues.

El Dorado, Kan.—B. F. Allebach, City Clk., writes following are 4 lowest bids opened Feb. 16 for constructing sewage disposal plant: McCoy & Taylor, Kansas City, Mo., $8,882; Heany Constr. Co., Enid, Okla., $9,215; Tonkawa Constr. Co., Kansas City, Mo., $9,591; Stach & Curry, Kansas City, Mo., $9,699.

Osborne, Kan.—Bids desired until Mar. 10 for furnishing material and constructing a sewerage system, consisting of 15,840 ft. 8-in., 3215 ft. 10-in., 3620 ft. 12-in. vitr. sewer tile, 10 flush tanks, 51 standard manholes, septic tank complete, including excavation, concrete by-passes, valves, etc. E. T. Archer & Co., Engrs., New England Bldg., Kansas City, Mo. S. P. Soult, Mayor.

Salina, Kan.—Bids will probably be received in May for constructing sewer in Ash St., about 2500 ft. 36-in. pipe sewer, average depth 22 ft. P. G. Wakenhut, City Engr.

Sterling, Kan.—City Council reported to be considering construction of a sewer system.

Benton, Ark.—See "Water Works."

Springdale, Ark.—See "Water Works."

Brenham, Tex.—The State Attorney-General has approved a $15,000 sewer bond issue.

★**Dallas, Tex.**—Following are reported to be the lowest bids recently received by City Comrs. for constructing first unit of the $550,000 sewage disposal system: General Constr. Co., Ft. Worth, $55,720 (awarded contract); Dallas Lime & Gravel Co., $70,020.

★**Houston Heights, Tex.**—Contract for sewage pump house and pit (bids opened Feb. 18) awarded to Hardman & Nelson, Houston Heights.

Seattle, Wash.—The Bd. of Pub. Wks has approved plans for construction of sewers in Lakeside Ave. at a cost of $24,500, work to include 13,010 ft. of 8, 10, 12 and 15-in. pipe, 81 brick manholes, 3 flush tanks and 36 catch basins.

Huntington Beach, Cal.—Bids reported desired until Mar. 29 by Bd. City Trustees for constructing outfall portion of the sewer system and septic tank. The work will require 1200 ft. 12-in. c.-i. pipe with flexible joint (1000 ft. of which is to be laid on the bed of the ocean), 800 ft. 16 and 24-in. vitr. pipe and concrete septic tank, 20 x 40 x 12 ft.

Phoenix, Ariz.—Bids desired until Mar. 29 by Cato Sells, Comr. Indian Affairs, Washington, D. C., for constructing a sewer system, Phoenix Indian School and Sanatorium, Phoenix. For further information apply to Chas. W. Goodam, Supt. Indian School, Phoenix.

South Vancouver, B. C.—S. B. Bennett, Municipal Engr., Fraser St. and 43d Ave., writes that a by-law was passed in January appropriating $400,000 for sewer work; plans are being prepared and the work will probably be done by day labor.

BRIDGES.

Items Arranged Geographically

Bridgeport, Conn.—The Stratford Ave. Bridge Comn. is stated to have selected Greiner & Whitman, Baltimore, Md., as engineers for Stratford Ave. Bridge; cost about $400,000.

Greenwich, N. Y.—Concrete Steel Eng. Co., Park Row, New York, has been retained by towns of Greenwich and Easton, N. Y., to prepare plans for 3 concrete bridges over the Battenkill; one located at Greenwich, one at Clarks Mills and the third at Middle Falls. At the election Feb. 23 the town of Greenwich voted in favor of the construction, but the town of Easton voted against the proposition.

Somerville, N. J.—Bids reported desired until Mar. 9 by County Freeholders for a reinforced concrete bridge over North Branch River.

Chalfont, Pa.—The County Comrs. Doylestown, contemplate constructing a bridge over North Branch Creek, on Park Ave., Chalfont.

Harrisburg, Pa.—The Cumberland Valley Railroad, a part of the Pennsylvania System will open bids about Mar. 17 for an arch bridge to replace present steel deck truss bridge over Susquehanna River at Harrisburg. The new bridge will cost approximately $750,000, and will be 4000 ft. in length. The present pier will be utilized and a number of additional ones built. In connection with construction of new bridge the Cumberland Valley Railroad will build undergrade crossings at Front and 2d Sts. in city of Harrisburg. The bridge will have 46 spans and will carry 2 tracks. Address M. C. Kennedy, Chambersburg, Pres. Cumberland Valley R.R. Co.

Manheim, Pa.—Bids will probably be received in April by County Comrs. at Lancaster for construction of a 50-ft. span reinforced concrete girder bridge.

★**Philadelphia, Pa.** — Contract awarded Feb. 25 by Dept. Pub. Wks. for constructing a concrete bridge and its approaches to carry Broad St. over the joint four-walk railroad, South Philadelphia. Track Elevation Contract No. 201, to Arthur McMullen Co., Inc., 149 Bway., New York, at $237,600. With extras to cost $242,256. Next 3 lowest bids—(a) total cost, (b) with extras: Edwin H. Vare, 1120 Race St., (a) $250,000, (b) $254,153; Wm. H. Millard, 12th St. and City Line, (a) $255,900, (b) $260,731; Snare & Triest Co., New York, (a) $258,800, (b) $263,287. Geo. S. Webster, Ch. Engr., Bureau of Surveys.

★**Lawrenceville, Va.**—Contract awarded by County Supervisors, Feb. 19, for constructing steel bridge over Meherrin River, to Roanoke Bridge & Iron Co., of Roanoke.

Radford, Va.—John G. Osborne, Finance Comn., writes citizens voted Feb. 9 to issue bonds for constructing a bridge.

Suffolk, Va.—Bd. Supervs. Nansemond County and Council Com. contemplates constructing iron bridge over Nansemond River, cost $9,000.

Atlanta, Ga.—About $8,150 is to be spent by City Council for improving bridge and tracks of Whitehall St. Bridge.

Jasper, Ala.—Bids reported desired until Mar. 15 by County Comrs., Jasper (Chas. M. Sartain, Chmn.) for constructing 4 steel bridges across Black Warrior River at Cordova, Sipsey Fork, Mulberry and Town Creek.

★**Mobile, Ala.**—Contract awarded Feb. 23 for 1865 ft. concrete culvert to J. W. Gurley, of Mobile, at $8,154. Next 3 lowest bids: Hancock, Harben & Hancock, Mobile, $8,380; G. A. Muths, Mobile, $8,400; G. A. Chamblin, Mobile, $8,697. Wright Smith, City Engr.

★**Shreveport, La.**—Contract for reconstructing Vicksburg, Shreveport & Pacific Ry. Co.'s bridge over Red River awarded to Blodgett Constr. Co., Kansas City, Mo.

Louisville, Ky.—Lowest bid opened by Bd. Pub. Wks. for constructing concrete culvert in Drescher-Bridge St. submitted by L. W. Hancock Co. at $4,800.

Pineville, Ky.—Citizens of Bell County voted $250,000 bonds for road improvements.

★**Cincinnati, O.** — Contracts awarded Feb. 26 for constructing 2 concrete bridges to Eradison Constr. Co., 1837 Fairfax Ave., Cincinnati. Albert Reinhardt, Co. Clk.

Bids reported desired until Mar. 19 by County Comrs. at Cincinnati, for constructing a concrete culvert in Springfield Township.

★**Cleveland, O.**—Contract awarded Mar. 2 for constructing east and west sections of Clark Ave. viaduct, steel superstructure, to King Bridge Co., Cleveland, at

Long Island City, L. I., N. Y.—Following are unit prices of 4 lowest bids opened Feb. 26 by Maurice E. Connolly, Pres. Boro. Queens, for construction of a sewer in Nebraska, Van Wyck, Beaufort and Jerome Aves., 4th Ward, Queens Boro.: (a) Faino Bros., 67 Bay 47th St., Bath Beach, $46,310; (b) Newman & Carey Co., 215 Montague St., Brooklyn, $47,277; (c) Rosenthal Eng. & Contr. Co., 165 Hooper St., Brooklyn, $48,306; (d) Green Contr. Co., $51,063.

	(a)	(b)	(c)	(d)
526 lin. ft. 4 ft. 9 in. reinforced concrete sewer	$10.00	$7.40	$8.60	$9.20
1,060 lin. ft. 4 ft. 6 in. reinforced concrete sewer	10.00	6.65	8.34	8.90
1,353 lin. ft. 4 ft. 3 in. reinforced concrete sewer	8.00	6.40	7.34	8.90
467 lin. ft. 4 ft. concrete sewer	4.00	5.25	4.58	5.00
910 lin. ft. 3 ft. 6 in. concrete sewer	4.00	4.60	4.81	5.00
569 lin. ft. 3 ft. concrete sewer	3.00	3.95	4.52	5.00
251 lin. ft. 24-in. vitr. salt-glazed pipe sewer	3.00	3.25	3.00	3.00
732 lin. ft. 18-in. vitr. salt-glazed pipe sewer	3.00	2.55	2.50	2.20
739 lin. ft. 15-in. vitr. salt-glazed pipe sewer	1.50	1.95	1.90	1.90
2,768 lin. ft. 12-in. vitr. salt-glazed pipe sewer	1.00	1.60	1.27	1.28
65 manholes, complete	40.00	55.00	50.00	42.00
17 single receiving basins, complete	100.00	150.00	100.00	100.00
500 lin. ft. 12-in. vitr. salt-glazed pipe for basin connections	1.00	1.20	1.00	1.00
1 junction chamber, complete	240.00	150.00	138.10	300.00
32 spurs, 24-in. on 4 ft. 9 in. reinforced concrete sewer	.01	.40	.30	.18
65 spurs, 24-in. on 4 ft. 6 in. reinforced concrete sewer	.01	.40	.30	.18
82 spurs, 24-in. on 4 ft. 3 in. reinforced concrete sewer	.01	.40	.30	.18
20 spurs, 24-in. on 4 ft. concrete sewer	.01	.40	.30	.18
52 spurs, 24-in. on 3 ft. 6 in. concrete sewer	.01	.40	.30	.18
36 spurs, 24-in. on 3 ft. concrete sewer	.01	.40	.30	.18
16 spurs on 24-in. vitr. salt-glazed pipe sewer	.01	3.25	2.80	2.00
44 spurs on 18-in. vitr. salt-glazed pipe sewer	.01	2.00	1.57	1.20
49 spurs on 15-in. vitr. salt-glazed pipe sewer	.01	1.50	1.10	.72
192 spurs on 12-in. vitr. salt-glazed pipe sewer	.01	.90	.67	.50
1,347 lin. ft. 6-in. vitr. salt-glazed pipe for house connection drains	.40	.70	.75	.50
48 M ft. timber for bracing and sheet piling	.01	40.00	30.00	32.00

★*Items marked thus give the names of parties awarded contracts.*

$51.90 per ton for 9,400 tons steel and iron furnished and erected, total $487,860. Other bids: (a) per ton; (b) total: McClintic-Marshall Co., Pittsburgh, Pa., (a) $54.60; (b) $513,240; American Bridge Co. of New York, (a) $55.90; (b) $525,460; Strobel Steel Constr. Co., Chicago, (a) $62.20; (b) $584,680. F. D. Richard, City Bridge Engr.

Sycamore, Ill.—See "Paving and Roads."

Rockford, Ill.—The Rockford & Interurban Ry. Co. writes (W. S. Hubbard, Ch. Engr.), is reported to be considering construction of a bridge over Rock River.

Dubuque, Ia.—Bids desired until Mar. 10 by John Ingraham, Co. Aud., for constructing bridge work as follows: 18 ft. I-beam span with reinforced concrete floor, abutments and wing walls in Dubuque Township, estimated cost $2,000; 46x16 ft. pony truss span in Taylor Township, estimated cost $1,800; 16 ft. I-beam span in Washington Township, estimated cost $1,300; 2 reinforced concrete abutments for a 60 ft. steel span in Vernon Township. Bid price to include removal of present steel tubes and placing bridge on new abutments. Estimated cost $1,800. Bids also desired for constructing numerous culverts throughout the county.

Ft. Dodge, Ia.—About $25,000 is to be spent for constructing bridges. Plans being prepared by G. F. Smith, County Engineer.

★**Knoxville, Ia.**—Contracts have been awarded by County Comrs. for bridge and culvert work as follows: To L B Child, Nevada, Ia., Group A, 5 Truss spans at $24,000, and Group F, 21 culverts, $7,758; Thor Constr. Co., Cedar Falls, Group B, 4 beam spans, $5,240; Group C, 7 culverts, $2,400; Group D., 21 culverts, $8,360, and to Western Bridge & Constr. Co. Group E, 20 culverts, $8,800. W. O. Price, County Engr.

Bids reported desired until Mar. 15 by J. S. Schlotterback, Co. Aud., for furnishing corrugated iron culvert pipe as follows: 2,970 ft. 12 in., 3,556 ft. 15 in., 3,092 ft. 18 in., and 3,072 ft. 24 in. W. O. Price, Co. Engr.

Muscatine, Ia.—U. S. Congress passed bill authorizing Interstate Bridge and Terminal Co. to construct bridge over Mississippi River at Muscatine.

New Hampton, Ia.—Bids desired until Apr. 7 by P. E. McGinn, Co. Aud., for 5 steel truss bridges and structural steel for 10 I-beam bridges.

Duluth, Minn.—See "Water Works."

★**Mora, Minn.**—A. V. Sanders, Co. Aud., writes contract for constructing 3 bridges (bids opened Feb. 16) has been awarded to Wausau Iron Wks., Wausau, Wis., at a total of $10,759.

Garfield, Kan.—Bids reported desired until Mar. 15 by County Commissioners at Larned for constructing reinforced concrete bridge over Arkansas River at Garfield. Alternate plans call for either a 300-ft. 6-arch bridge or a 6-span flat top bridge.

Kansas City, Kan.—The Union Pacific and Rock Island Rys. and Metropolitan St. Ry. Companies voted to construct concrete viaduct over Union Pacific and Rock Island Ry. yards, at 18th St., in Kansas City, Kan.; cost about $150,000.

Winfield, Kan.—Bids reported desired until Mar. 15 by H. Bryan, County Clk., for constructing a 40-ft. span reinforced concrete bridge, 16 ft. roadway and concrete abutments across Timber Creek at A. L. Crow Ford; also 40-ft. span reinforced concrete bridge 16 ft. roadway (stone arch) and concrete abutments across Timber Creek at Snodgrass Ford. J. M. Bradley, Co. Engr.

Red Cloud, Neb.—Bids reported desired until Mar. 23 by J. J. Garber, Co. Clk., for steel bridge and culvert construction for 1915; also furnishing steel I-beams and reinforcing rods.

Billings, Mont.—Bids desired until Mar. 20 by County Commissioners for constructing 2 highway bridges over Yellowstone River, one near the mouth of Pompey's Pillar Creek, cost $45,000, and one near mouth of Duck Creek, cost $32,000. F. E. Williams, Co. Clk.

Kansas City, Mo.—Ralph R. Benedict, Supt. Park Comn., writes that the proposed bridge to be constructed over Brush Creek, at Benton Boulevard, will be of concrete on concrete foundation and cost $35,000. Engineer L. R. Ash, Kansas City.

Waldron, Ark.—County Court voted to construct 2 steel bridges, one over Petit Jean River in northern part Scott County and one over Poteau River west of Waldron, cost about $10,000.

★**Oilton, Okla.**—Contract for constructing steel bridge over Cimarron River near Oilton has been awarded by Creek County to Boardman Bridge Co., Oklahoma City, cost about $27,000.

Bellingham, Wash.—Bids reported desired until Mar. 18 by W. D. Wallace, Clerk Co. Comrs., for 380 ft. steel span bridge and concrete piers, over Norksack River.

Lynden, Wash.—Bids desired by County Comrs., at Bellingham, until Mar. 18, for constructing a steel bridge one 380 ft. span 20 ft. wide on concrete foundation across Nooksack River, at Lynden; estimated cost $32,000. C. M. Adam, Co. Engr.

Seattle, Wash.—Contract is about to be let by Bd. Pub. Wks. for constructing draw bridge over Duwamish River at 8th Ave. South; cost, $45,000.

Spokane, Wash.—Bids desired about Apr. 2 by County Comrs (J. W. Starck, Co. Engr.) for constructing a bridge 11 miles from Spokane at Nine Mile; it will be a reinforced concrete arch bridge 150 ft. long and 20 ft. wide on rock foundabridges on county roads also contemtion and cost about $20,000. Several small plated.

Tacoma, Wash.—The Mashel River Bridge will be rebuilt on Mt. Tacoma Rd. by County Comrs., to be steel and concrete, and cost $35,000.

Plans have been completed by Northern Pacific Ry. Co., St. Paul, Minn., for constructing steel and concrete bridge over River St.; cost about $85,000.

Tumwater, Wash.—County Comrs. at Olympia and city have voted to construct joint bridge over Des Chutes River; cost about $15,000.

Portland, Ore.—See "Railroads."

Vale, Ore.—Contracts are about to be let by County Court for constructing steel bridge over Snake River at Big Bend, cost $30,000.

★**Portland, Ore.**—Bids for construction of 3 concrete bridges on Columbia Highway in Multnomah County, received Feb. 17 at the office of the County Comrs. as follows:

*McCord Creek Structure No. 9 awarded to Robt. Wakefield, Portland, as follows: Class A concrete in foundation, per cu. yd., $12; Class A concrete in superstructure per cu. yd., $16; reinforcing steel, per lb., 3.5 cts.; railing, per lin. ft., $1; total bid, $16,904. Next 3 lowest bids: Pacific Bridge Co., Portland, $17,302; Ferch, Goss, Scott & Hicks, Seattle, Wash., $18,271; A. Guthrie & Co., Inc., Portland, $18,755.

*Moffett Creek Structure No. 10, awarded to A. Guthrie & Co., Inc., Portland, as follows: Class A concrete in foundation per cu. yd., $16.75; Class A concrete in superstructure, per cu. yd., $16.75; cast iron and steel shafting, per lb., 4.25 cents.; reinforcing steel, in place, per lb., 3.5 cts.; railing, per lin. ft., $2.95; total, $14,364. Next 3 lowest bids: Ferch, Goss, Scott & Hicks, Seattle, Wash., $13,630; Boyajohn-Arnold Co., Portland, $14,506; Alexis Contract Co., $15,104.

*Tanner Creek Structure No. 11, awarded to Robt. Wakefield, Portland, as follows: Class A concrete in foundation, per cu. yd., $12; Class A concrete in superstructure, per cu. yd., $15; reinforcing steel, in place, per lb., 3.5 cts.; railing, per lin. ft., $1.50; total, $3.979. Henry L. Bowlby, State Highway Engr.

★**Bakersfield, Cal.**—Contract for grading and constructing 9 bridges on 3 miles of Wasco Lost Hills Rd. has been awarded to C. M. & M. Hart, Wasco, at $14,503.

Fredericton, N. B.—Bids desired until Mar. 31 by John Morrissy, Minister Pub. Wks., for constructing metal superstructure of new bridge to take place of present wooden bridge at Moncton over Petitcodiac River between City of Moncton, Westmoreland County, and Parish of Coverdale, Albert County, consisting of a through fixed riveted steel truss span of 355 ft. c. to c. of end bearings, 4 through fixed riveted steel truss spans of 261 ft. 6 in. from c. to c. of end bearings; also separate bids for constructing substructure of said bridge, consisting of 2 masonry abutments and 4 masonry piers to support 5 metal superstructure spans with roadway surface thereon some 54 ft. above the river bed surface, the abutments end retaining continuous stone and earth embankments approaches; thus the work covers an approximate total longitudinal length of 1,787 ft. plans may be seen at the office of the Structural Engr. Co., Ltd., New Birks Bldg., Montreal, Que.

Kingston, Ont.—Bids desired until Mar. 18 by R. C. Desrochers, Secy. Dept. Pub. Wks., Ottawa, Ont., for constructing superstructures of 2 steel through truss highway bridges and a steel single-leaf highway Strauss trunnion bascule bridge over Cataraqui River at Kingston.

PAVING AND ROADS.

Items Arranged Geographically

Maine.—State Highway Comn. is completing plans for 1915 work and will be ready to let contracts about April 1 for State road work. Bituminous macadam and gravel will be used. Irwin W. Barbour, of Augusta, Engr. of State Highways, Augusta.

Boston, Mass.—About $200,000 is to be spent by city for constructing sidewalks.

Massachusetts.—Contract awarded Mar. 2, by State Highway Comn., Boston (A. W. Dean, Ch. Engr.) as follows:

★**Charlton,** for 6995 sq. yds. bituminous macadam, with stone foundation, awarded to T. Toomey, of Webster, at $8,414. (Bituminous material furnished by Comn.; also stone bound.)

★**Swansea.**—For 12,126 sq. yds. of bituminous macadam, with stone foundation, awarded to L. H. Callan, Bristol, R. I., at $10,100. (Bituminous material furnished by the Comn.; also stone bound.)

Westfield, Mass.—Highway Dept. has recommended 6200 sq. yd. bituminous pavement and 1500 ft. 15 and 20-in. drain. J. L. Hyde, Town Engr.

Worcester, Mass.—Bids desired until 11.30 a. m., Mar. 8, by A. T. Rhodes, Street Comr., and opened at the office of the Mayor, for furnishing and delivering approximately 20,000 lin. ft. straight curb, 3,000 lin. ft. circular curb, 600,000 paving blocks, etc.

Meriden, Conn.—Bids desired until Mar. 23 by Bd. Pub. Wks. (W. S. Clark, Supt.) for paving with wood block and vitr. brick State St., advertised in Engineering Record.

New Haven, Conn.—Bids desired until Mar. 15 at office of F. L. Ford, City Engr., for laying new cement sidewalks at such locations as may be required. Separate bids desired on two sections of the city as divided easterly and westerly by the center lines of Whitney Ave., Church and Meadow Sts.

Albany, N. Y.—Bids desired until Mar. 23 by State Comn. of Highways (Edwin Duffey, Comn.) for improving highways in Allegheny, Cattaraugus, Columbia, Erie, Chemung, Franklin, Jefferson, Monroe, Niagara, Rensselaer, Schuyler, Putnam and Sullivan Counties, in all 54.41 miles, advertised in Engineering Record.

Brooklyn, N. Y.—Bids desired until Mar. 10 by L. H. Pounds, Boro. Pres., for regulating, grading, curbing and laying sidewalks on Ave. U and Benson Ave., E. 3d, E. 8th, E. 34th Sts., requiring in all 58,960 sq. ft, cement sidewalks, etc.; also furnishing and delivering 400,000 gal. asphalt road oil to be delivered to any or all railroad stations or public docks in Boro. Brooklyn.

Bids desired until Mar. 11 by Park Bd., New York City (Cabot Ward, Pres.), for furnishing all plant, labor and material required to furnish and place 250,000 cu. yd. earth fill along Shore Rd. bet. 94th St. and Ft. Hamilton Ave., Boro. Brooklyn, together with all work incidental thereto. Security, $20,000.

Buffalo, N. Y.—Common Council has voted to pave Garfield St., Riverview Pl. with brick, Ashland Ave., Harvard and Horton Places. Tennyson Ave., Jefferson, Myrtle, Pulaski and Skillen Sts. with asphalt, and Scott St. with stone.

★Contract for paving with asphalt Bogardus, Ludington and Rano Sts. awarded to Henry P. Burgard Co., 1968 Fillmore Ave., at $53,275.

★**Buffalo, N. Y.**—Contract for paving with asphalt Beatrice, Henrietta, Gorton and Weiss Sts. has been awarded by Common Council to German Rock Asphalt & Cement Co., D. S. Morgan Bldg. at $66,027.

Common Council voted to pave Kopernick, Krakaw, Matejko and Rejtan Sts. and repave Bailey and E. Delaware Aves., Chicago, Washington and S. Cedar Sts.

Following are bids opened Feb. 24, for repaving:

Germain St. Spire & Prior, Ellicott Sq. for brick $12,295; German Rock Asphalt Constr. Co., D. S. Morgan Bldg. asphalt $12,790.

Bridgman St. Spire & Prior, brick $8,143; German Rock Asphalt Constr. Co., asphalt $8,560.

Farmer St., Spire & Prior, brick $13,954; H. P. Burgard & Co., Filmore & Kensington for asphalt $14,225.

Corning, N. Y. See "Paving and Road Making."

Endicott, N. Y.—About $20,000 Washing Ave. paving bonds have been sold by Village Bd. Trustees.

Geneva, N. Y.—Following are 3 lowest bids opened by Bd. Pub. Wks. for paving with brick Castle St.; Robt. W. Henson, Geneva, $72,328; Phelan & Sullivan, Utica, $79,149, and Lake Shore Constr. Co., Dunkirk, $79,466.

Long Island City, L. I., N. Y.—Bids desired until Mar. 11 by Maurice E. Connolly, Boro. Pres., for paving with improved granite blocks, portions of College Point Causeway and Thomson Ave., in all 17,400 sq. yd. pavement, etc.; laying sidewalks and paving with asphalt blocks Hopkins Ave., 3200 sq. yd. pavement, 5400 sq. ft. cement sidewalk, etc.; laying sidewalks and paving with sheet asphalt Hughes St., 1300 sq. yd. pavement, 3300 sq. ft. cement sidewalk, etc.; repairing sheet asphalt and asphaltic concrete in the 1st, 2d, 3d, 4th and 5th Wards. Total security, $9,500; laying sidewalks on Harvard Ave., 8175 sq. ft., cement sidewalk.

New York, N. Y.—Lowest bid opened Feb. 20 by R. A. C. Smith, Comr. Docks and Ferries, for paving, repairs on Marginal St. and piers, North, East and Harlem Rivers, Boro. Manhattan, with work incidental, about 13,000 sq. yds., submitted by Sicilian Asphalt Paving Co., 41 Park Row, at $1.14 per sq. yd.

Bids desired until Mar. 11 by Park Bd., New York City (Cabot Ward, Pres.) for furnishing material and surfacing with asphaltic concrete the City Island Rd. from Eastern Boule. to City Island Bridge, Pelham Bay Park, Boro. Bronx. Security $10,000.

Bloomfield, N. J.—Bids desired until Mar. 15 at office of Raymond F. Davis, Town Clk., for furnishing and spreading road oil on streets within the limits of the town of Bloomfield, approximately 70,000 gal.

Camden, N. J.—Bids reported desired until Mar. 15 by A. B. Sparks, Chmn. Com. on Streets & Highways, for furnishing f.o.b. cars Camden, the following: 50 tons more or less refined asphalt; one car load or more cement; 1 car load asphalt sand and 50 tons stone dust for 1 year.

Jersey City, N. J.—Bids desired until Mar. 11 by City Commissioners for repairs to asphalt pavements which are not under guarantee from date of contract to Nov. 30, 1915. Michl. I. Fagen, City Clk.

★Bids desired until Mar. 11 by County Bd. Chosen Freeholders (W. O'Mara, Clk.) for $150,000 boulevard repair bonds.

Mt. Holly, N. J.—Following are 2 lowest bids opened by Road Com. of Bd. Chosen Freeholders Mar. 1 for resurfacing stone roads in Burlington county (Jas. Logan, Co. Engr.).

Medford to Ballanger's Mills Road: Berk & Bonham, Plainfield, $8,587; Conrad Sebolt, New Brunswick, $8,914.

Burlington to Bowne's Corner Road: Paul J. Snyder, Philadelphia, Pa., $10,009; T. J. Barrett, Roebling, $10,126.

Columbus to Bordentown Road: Paul J. Snyder, Philadelphia, Pa., $18,298; J. L. LeCoumpt, Lakewood, $20,519; Conrad Sebolt, New Brunswick, $20,519.

Bordentown to Crosswicks Creek Road: Paul J. Snyder, Philadelphia, Pa., $7,166; Conrad Sebolt, New Brunswick, $8,207.

Moorestown to Masonville Road: Paul J. Snyder, Philadelphia, Pa., $14,068; J. F. Shanley, Philadelphia, Pa., $15,664.

Medford to Coates Corner Road: Paul J. Snyder, Philadelphia, Pa., $11,867; Berk & Bonham, Plainfield, $12,911.

Somerville, N. J.—Bids reported desired until Mar. 25 by County Bd. Freeholders, Somerville, for rebuilding with State aid, road from Larger Cross Roads, Bedminster Township, to Hunterdon County Line, about 3 miles.

Altoona, Pa.—Contract is about to be let by city for about 40,000 sq. yds. vitr. brick pavement with concrete base.

Ebensburg, Pa.—Plans are being prepared by Curry & Campbell for road to be constructed between South Fork and Franklin by county; cost $38,000.

Monaca, Pa.—Michael Baker, Borough Engineer, estimates cost of paving portions of 5th, 6th, 8th, 10th, 11th, 12th, 13th, 15th, 16th Sts. and Virginia Ave. at $25,000.

Philadelphia, Pa.—Bids desired until Mar. 10 by Henry Loeb, Dir. Dept. Supplies, for furnishing supplies during the year 1915, to consist of paving, gravel, trap rock and chips for Bureau Highways.

Reading, Pa.—Bids will probably be received in April by Chas. Marks, City Clk., for paving Perkimen Ave. with wood block on concrete foundation; cost $50,000. E. B. Ulrich, City Engr.

Sharon, Pa.—Bids desired until Mar. 10 by Claude B. Lartz, Boro. Secy., for furnishing a 3-wheel road roller, weighing approximately 10 tons, a one batch concrete mixer with gravity distributer and traction drive and 2 5-bbl. heating kettles.

★**Medford, Mass.**—Following are 5 lowest bids opened Feb. 9 by the Metropolitan Park Comn. (John R. Rablin, Mgr.), 14 Beacon St., Boston, for Contract 174, grading, surfacing and other work, Mystic Valley Parkway, from Main St. to Mystic Ave., Medford: (a) Coleman Bros., Boston, $43,780 (awarded contract); (b) Richmund F. Hudson, Melrose, $46,817; (c) Jas. H. Fannon, Somerville, $48,743; (d) Rowe Contr. Co., Brighton, $51,077; (e) Chas. A. Kelley, Somerville, $51,241.

	*(a)	(b)	(c)	(d)	(e)
4,000 cu. yds. earth grading	$0.40	$0.60	$0.40	$0.50	$0.30
45,000 cu. yds. fill	.56	.62	.69	.67½	.75
850 lin. ft. 10-in. vitr. pipe drain	.30	.40	.40	.50	.35
800 lin. ft. 12-in. vitr. pipe drain	.40	.45	.50	.60	.45
400 lin. ft. 24-in. vitr. pipe drain	1.25	1.25	1.50	2.00	1.35
26 catch basins and manholes	50.00	30.00	25.00	30.00	35.00
170 lin. ft. straight edgestone	1.00	1.25	1.10	1.10	1.00
140 lin. ft. curved edgestone	1.50	1.75	1.40	1.50	1.10
3,000 cu. yds. loam to be furnished by contractor	1.00	1.00	1.25	1.20	1.15
11,000 sq. yds. roadway surfacing	.49	.55	.60	.60	.45
3,200 sq. yds. walk surfacing	.30	.40	.35	.35	.30
750 cu. yds. stone masonry	6.50	5.00	3.00	6.00	6.00

★Items marked thus give the names of parties awarded contracts.

Uniontown, Pa.—Bids desired until Mar. 16 by Harry Kinsinger, County Controller, for separate bids for constructing tarvia bound macadam roads with Telford base, 16 ft. wide as follows: 10,560 ft. road in North Union Township, from Uniontown to Upper Middletown; 5280 ft. in Perry Township, from Fayette City to Perryopolis; 5280 ft. in Franklin Township, from Brownsville to Vanderbilt.

Washington, Pa.—Bd. County Cmrs. voted $120,000 bonds for road improvements.

★**Baltimore, Md.**—Contract for paving outside car tracks on Charles St. with asphalt has been awarded by Bd. Awards Feb 17 to P. Flanigan & Sons, Baltimore, at $13,285.

Frederick, Md.—County Comrs. voted to construct state road from Brunswick to intersect state road at Petersville, cost about $39,750.

Hagerstown, Md.—County Comrs. voted to construct about 15 miles state aid highways in Washington County.

Maryland.—Bids desired until Mar. 16 by State Roads Comn., 601 Garrett Bldg., Baltimore (Wm. L. Marcy, Secy.) for oiling 7 sections of State highways, aggregating 475 miles in length, and requiring approximately 1,278,300 gal. of oil, advertised in Engineering Record.

Bids desired same time and place as above for constructing two sections of State road in Worcester County as follows: Contr. No. WO-9, Pocomoke, toward Virginia State line, concrete road, about 1.5 miles. Contr. No. WO-10, Pocomoke toward Stockton, concrete road, about 1.5 miles.

Parkersburg, W. Va.—See "Sewerage and Sewage Disposal."

Marshall, N. C.—Bids desired until Mar. 16 by J. B. Clingman, Co. Road Engr., for grading and draining approximately 6.9 miles of road leading out of Hot Springs. Excavation approximately 73,550 cu. yds.

Columbia, S. C.—House of Representatives passed bill authorizing Richland County to issue $1,250,000 bonds to improve and develop county roads.

Orangeburg, S. C.—All bids opened Feb. 12 for paving Court House Sq. and Church St., etc., with brick or wood block have been rejected, and work will be done by Street Dept. under supervision of Edw. Hawes, Jr., City Engr.

Atlanta, Ga.—See "Sewerage and Sewage Disposal."

Savannah, Ga.—City Council voted to pave Broad and Bay Sts.

Clearwater, Fla.—No bids were opened Feb. 17 for 20,000 sq. yds. brick paving; the contract will be let some time in March. For further information address J. N. Drew, City Engr.

Covington, La.—Bids desired until Mar. 20 at office of State Highway Dept., New Orleans (F. M. Kerr, Ch. Engr.) for constructing about 26 miles main public highway extending from Covington to Slidell St., Tammany Parish.

★**Mansfield, La.**—Contract awarded Feb. 15 for constructing 4½ miles concrete sidewalk to C. L. Soderstrom, Charleston, Mo., 14 cts. per sq. ft. Jos. B. Elam, Mayor.

Shreveport, La.—About $20,000 is to be spent by City Commission for pavements.

Columbus, Miss.—The Second District Good Road Comn. of Lowndes County desires bids for 22 miles of macadam roads on Mar. 24. Address Gus E. Hauser, Jr., Eng., Columbus.

Vicksburg, Miss.—About $300,000 Warren County Road bonds have been sold.

Knoxville, Tenn.—County Court is considering issuing $500,000 bonds for constructing pikes.

Maryville, Tenn.—Citizens voted $300,000 bonds for constructing pike roads.

Maryville, Tenn.—Press reports state bids desired until Mar. 13 by County Commissioners for $100,000 road bonds.

Louisville, Ky.—Bids desired until Mar. 9 by Bd. Pub. Wks. (Roger G. McGrath, Secy.), for paving portions of Clark Ave., Zane Hill and Johnson Sts. It is reported vitr. block will be used. Probable cost $29,500.

Morgantown, Ky.—About $10,000 is to be spent by Butler County Fiscal Court for road improvements.

Munfordville, Ky.—Hart County Fiscal Court appropriated $12,000 toward reconstructing pike along Lincoln and Jackson Way from Hardin County line.

Newport, Ky.—About $30,000 is to be spent by City Comrs. for paving streets.

***Canton, O.**—W. L. Bender, County Surveyor, writes contracts for county road work (bids opened Feb. 24) have been awarded as follows:

*For Navarre-Justus Road Improvement, 2.49 miles, 12,496 cu. yds, excav. 21,898 sq. yds. bituminous macadam, awarded to R. C. Roush, Canton, at $24,465 on slag base, slag top course.

*Massillon-Millersburg Road, 3.569 miles, 25,005 cu. yds. excav., 37,692 lin. ft. stone or concrete curb, 31,410 sq. yds. slag or concrete base, 31,410 sq. yds. vitr. block, tar or grout filler, awarded to Ph. Dieffenbacher & Sons, Massillon, at $68,991, on tar fill, concrete curb, concrete base, repressed block.

*Alliance-Bolton Road Improvement, 1 mile, 3661 cu. yds. excav., 9337 sq. yds. bituminous macadam, awarded to Highway Constr. Co., Elyria, at $10,601, on slag base, stone top course.

*Magnolia-Sparta Road Improvement 3.12 miles, 23,700 cu. yds. excav., 27,600 sq. yds. bituminous macadam laid complete, awarded to R. C. Rouch, Canton, at $33,585.

★**Cleveland, O.**—Contracts for brick paving (bids opened Feb. 17 by Bd. Pub. Wks.) have been awarded as follows: To Baldwin Bros., of Cleveland, for paving Mayfield Rd., Primrose Ave., Scottwood Ave., E. 124th St. and Hawthorne Court, 15,709 sq. yds., total cost $37,321; to Rieley Bros., Cleveland, for Kempton Ave., Empire Ave., No. 1, Eddy Rd., Varien Ave., E. 59th St., 26,487 sq. yds., total cost $64,582; Roehl Bros., Cleveland, for Empire Ave. No. 2, Adams Ave., Yale Ave., Parmelee Ave., E. 72d St., in all about 19,497 sq. yds., total cost $35,308; to Milton Freshwater, Cleveland, for paving Crawford Rd. and E. 107th St., 7311 sq. yds., total cost $15,877; Enterprise Paving & Constr. Co., Cleveland, for E. 114th Pl. and E. 51st St., 3105 sq. yds., cost $6,685.

★Contracts for brick paving (bids opened Feb. 24) have been awarded as follows (contractors all of Cleveland): To Enterprise Paving Co., Barkville Court and Pueblo Ave., $7,927; to Milton Freshwater, for Anderson Ave. and E. 116th St., $47,489; to Bentley Bros., for E. 102d St., E. 99th, E. 100th, E. 104th and E. 124th Sts. and Elwell and Sophia Aves., $56,683; to Baldwin Bros., for E. 9th St., E. 92nd, E. 126th and Ambler Sts. and Pratt Ave., $35,547; to Riley Bros., for E. 106th, E. 108th, E. 121st and E. 123d Sts., at $41,523; to Geo. B. Herring & Sons, E. 124th, E. 126th and E. 128th Sts., $25,070; to A. M. Pejsa Paving Co., for E. 89th St. and Elmarge Road, $10,903; to L. A. Mullin & Co., for Dickens Ave., $17,522, and to Cleveland Trinidad Paving Co., for E. 110th St., $4,447.

City Council voted to pave Wheelock Rd., W. 60th and W. 59th Sts.

Columbus, O.—Council Street Com. approved ordinances providing for paving about 144 streets.

Dayton, O.—City Commission appropriated $78,501 toward paving with brick and granite Main St.

Delaware, O.—Bids desired until Mar. 10 at office of F. C. Higley, Co. Surveyor, Delaware, for constructing roads as follows: Culver Creek Rd., Porter Township, 2.8 miles; Bowers Rd., Brown Township, 1.27 miles; Hatten Rd., Brown Township, 1.13 miles; Seldom Seen Rd., Liberty Township, 2.74 miles; Ford Rd., Liberty Township, 1.52 miles; Concord Rd., Concord Township, 6.60 miles; Todd St., Kingston Township, 3.4 miles.

Findlay, O.—Press reports state bids desired until Mar. 15 by County Commissioners for $93,000 road improvement bonds, issued for the purpose of constructing 18 miles waterbound pike.

Reported, probably in April, County Comrs. will let contracts for macadam roads, including about $20,000 of concrete culverts.

★**Fremont, O.**—Contract for the paving Clover St. has been awarded to Modern Constr. Co., Fremont, at $23,429.

Lorain, O.—Bids desired by Mar. 11 by Bd. Pub. Service (L. B. Johnson, Clk.) for paving East Ave. to include 24,000 cu. yds. excav., 4760 sq. yds. concrete foundation, 3000 lin. ft. stone curb 5 x 21 in., 3000 lin. ft. 3-in. drain tile, 4 manholes, 5 intakes, 800 lin. ft. 12-in. sewer 4760 sq. yds. brick or asphalt paving. C. M. Osborn, City Engr.

Mansfield, O.—Bids reported desired until Mar. 10 by Clerk Sandusky Township, at office of C. L. Bushey, County Surveyor, Mansfield, for 3 miles macadam.

New Philadelphia, O.—Bids reported desired until Mar. 12 by R. H. Nussdorfer, Co. Aud., for $45,000 bonds issued for the purpose of constructing and improving roads.

Ohio.—Bids desired at office of Jas. Marker, State Highway Comr., Columbus, until 2 P. M., Mar. 12, for improvements on the following roads:

Columbiana County, Sect. O., Cleveland-East Liverpool Rd., Center Township, for constructing bridges and culverts, grading roadways and paving with brick; length 3927 ft., width of paving 16 ft., width of roadway 24 ft. Estimated cost $14,494. (Date of completion Aug. 1.)

Erie County, Sect. K, Cleveland-Sandusky Rd., in Vermilion Township, constructing bridges and culverts, grading roadway and paving with concrete; length 22,814 ft., width 16 ft. of roadway 26 ft. Estimated cost $74,155. (Date of completion Sept. 1.)

Knox County, Sect. G, of Mt. Vernon-Coshocton Rd., Monroe Township, constructing bridges and culverts, grading roadway and paving with water bound macadam and brick; length 16,300 ft., width of pavement 14 ft., width of roadway 26 ft. Cost $44,892. (Date of completion Sept. 15.)

Mercer County, Sect. F, St. Marys-Ft. Wayne Rd., Dublin Township, constructing bridges and culverts, grading roadway and paving with concrete; length 8460 ft., width of pavement 16 ft., width of roadway 26 ft. Cost $23,003. (Date of completion Sept. 1.)

Tuscarawas County, Sect. J, New Philadelphia-West Lafayette Rd., York Township, constructing bridges and culverts, grading roadway and paving with brick; length 10,560 ft., width of pavement 14 ft., width of road 29 ft. Cost $32,823. (Date of completion Sept. 1, 1915.)

★**Ottawa, O.** — Contracts have been awarded by County Comrs. (bids opened Feb. 24) for stone road improvement in Putnam County as follows: C. H. Donaldson Joint County Road, and T. J. Winner Joint County Road, to J. B. Blosser of Cloversdale, at $40,364 and $13,665; John Hixon Road and M. Williams Road, to Westrick & Line, of Holgate, at $20,269 and $20,916 respectively; Tarley Billingsley Road, O. L. Smith, Leipsic, O., at $41,967; Wm. Kerns Road, Schoemaker & Sons of Pandora, O. $20,123; C. C. Schafer Road, R. C. Roach, of Waterville, $1,405; M. M. McDougle Road, W. H. & H. A. Sonder of Fortona, $10,331; J. S. Bleeks Road, J. W. Bowersock, of Ft. Jennings at $4,179; J. H. Hohenbrink Road and branches, to Ira Acton, of Vaughnsville, at $35,605; Chas. Conkright Road, to Floyd Wells, of Continental, at $13,850; H. H. Montooth, Road, C. S. Whitman, of Deshler, at $26,978; John E. Roose Co., Aud.

Sandusky, O.—About $30,000 Berlin Township road improvement bonds have been sold.

Bids desired until Mar. 26 by County Comrs. for $98,000 Main Market Rd. and Inter-County Highway improvement bonds. H. M. Adams, Co. Aud.

Toledo, O.—Bids desired until Mar. 30 by County Comrs. for furnishing and delivering macadam and all other materials required in the repair of all improved roads and parts of roads described in County Surveyor's report of Jan. 28, 1915.

Vermillion, O.—Citizens of Vermillion Township reported to have voted $30,000 bonds for improving Main Market Rd.

Warren, O.—About $50,000 bonds have been sold by city for constructing sewers on Niles Ave. and paving W. South St.

Wooster, O.—City Council voted to pave N. Bever St.

Youngstown, O.—See "Water Works."

Zanesville, O. — J. A. Dennis, City Engr., writes that Albert Adams & Son, of Zanesville, submitted lowest bid Feb. 23 for paving Blue Ave., at $6,887, and Adamsville Rd., at $4,193; and for Pine St. sewer, at $4,215.

Ft. Wayne, Ind.—Bids reported desired until Mar. 11 by Bd. Pub. Wks. for paving 8 streets.

Gary, Ind.—Petitions have been received by Bd. of Pub. Wks. for following street improvements: Alley No. 2 W. from 10th Ave. to 20th Ave., 1 mile brick or concrete; Connecticut St., from 18th to 21st, ⅜ mile macadam; 44th Ave., Madison St. to Harrison St., ½ mile sidewalks, curbs and gutters.

Indiana—Bids reported desired by County Comrs. as follows:

Until Mar. 12—Crown Point, constructing 5 gravel roads. E. Simon, Co. Aud.

Until Mar. 19—Bluffton, 13 contracts for stone, gravel and macadam roads; total cost about $63,000. C. T. Kain, Co. Aud.

Indianapolis, Ind.—Bids desired until Mar. 20 by W. T. Patten, Co. Aud., for furnishing about 200,000 gal. road oil and 200 carloads crushed stone.

Vincennes, Ind.—Bids reported desired until Mar. 15 for 20,000 yds. paving. Address E. G. Meyer, City Clk.

Battle Creek, Mich.—Bids reported desired until Mar. 15 by Frank Mahrle, Chmn. County Road Comrs., for gravel road contracts to cost about $60,000. Alex. A. McKay, County Engr., Battle Creek.

Lansing, Mich.—Bids desired until Mar. 29 at office of John McClellan, City Clk., for asphaltic cement.

Kalamazoo, Mich.—Bids desired until Mar. 8 by C. L. Miller, City Clk., for 160,000 vit. hillside paving block, advertised in Engineering Record.

Saginaw, Mich.—Citizens voted Feb. 17 to issue bonds for sidewalks. H. S. Gay, City Clk.

Rockford, Ill.—Bids desired until Mar. 15 by W. W. Bennett, Pres. Bd. Local Improv. for furnishing material and paving with brick portions of Melrose and Clinton Sts., approximately 12,400 sq. yd., and macadamizing portion of Prospect St., 9,600 sq. yd., advertised in Engineering Record.

★**Berwyn, Ill.**—Contract awarded Feb. 2 for paving W. 12th St. with brick to Waukeegan Improvement Co., Waukeegan, at $28,772. Oscar N. Lindahl, Secy., Bd. Local Improv.

Galesburg, Ill.—Bids will probably be received in April for paving N. Cedar and Sandborn Sts. with brick on concrete foundation. Wm. L. Boutelle, City Clk.

★**Galesburg, Ill.**—Contract for paving Mulberry St. and Allen Ave. has been awarded by Bd. Local Improvements to J. B. McAuley at $23,881.

★**Illinois.**—Contracts awarded by State Highway Comn. at Springfield (Wm. W. Marr, State Highway Engr.) for State Aid Road construction in Illinois, as follows:

★Cook County, Sect. G, concrete, to Walter & Windes, Glencoe, at $27,070.

★Madison County, Sect. A, brick, to Chas. H. Degenhardt, Alton, $29,982.

★Winnebago County, Sect. B, concrete, to Connelly & Dunning, Chicago, $14,400.

★Winnebago County, Sect. A, concrete, to Walter & Windes, $10,947.

★Alexander County, Sect. A, gravel, to Bland & Fitzgerald, Cairo, $5,448.

★Whiteside County, Sects. B and C, concrete, to Walter & Windes, Glencoe, $10,888.

Illinois.—Bids desired until Mar. 10 by State Highway Comn., Springfield (Wm. M. Marr, Ch. Engr.) for constructing highways in counties as follows (all cement to be furnished by State):

Monroe, Sect. A, Route 1, concrete road, about 1900 ft. Cost $2,979.

Union, Sect. A, Route 1, gravel road, about 3200 ft. Cost $3,130. (No material furnished by State).

Bureau, Sect. A, Route 7, concrete road, about 4000 ft. Cost $8,129.

Bureau, Sect. A, Route 4, concrete road, about 3928 ft. Cost $7,826.

★**Kankakee, Ill.**—Contract awarded by City Council Feb. 6 for paving 29,000 sq. yds. asphaltic concrete to F. P. Coughlun, of Chicago at $1.69 per sq. yd.; total cost, $54,000.

Moline, Ill.—Lyle Payton, City Engr., is preparing estimates for paving as follows: 20th and 21st Aves. with asphalt; 6th Ave. from 10th to 11th St. and connecting alleys with concrete; 10th Ave. from 15th to 16th St. with brick.

★**Rushville, Ill.**—Contract awarded Feb. 16 to P. H. Tiernan, of Macomb, for 8599 sq. yds. brick paving and 4690 sq. yds. macadam, at $29,672.

Sycamore, Ill.—Some bridge and highway work will be let in about 1 month. Address Wm. Miller, County Engr.

Richland Center, Wis.—Bids reported desired until Mar. 19 at office of Reuben Sutton, City Clk., for constructing a reinforced concrete pavement, a tar macadam pavement, an asphalt pavement and a waterbound macadam pavement to be laid along highway leading to Sextonville. Amount available $15,000.

Bids desired until Mar. 26 at office of City Clerk for paving certain streets in this city, in all approximately 18,570 sq. yds. pavement, 12,000 cu. yds. grading, 4400 lin. ft. combination curb and gutter and 1400 lin. ft. concrete waterways. Bids desired on waterbound macadam, tar macadam, asphalt macadam and reinforced concrete pavement. E. J. Lunenschloss, City Engr. G. H. Mainwaring, Co. Highway Comr.

Superior, Wis.—Bids reported desired until Mar. 9 by W. R. Russell, Chmn. Bd. Pub. Wks., for repaving N. 4th St. with sheet asphalt, reinforced concrete, asphaltic concrete or brick, or bituminous macadam or concrete.

Bids reported desired until Mar. 8, same place as above, for paving N. 13th St., with sheet asphalt, reinforced concrete or asphaltic concrete.

★**Cedar Falls, Ia.**—Contract awarded Feb. 17 to A. J. Jaicks Co., Kansas City, Mo., for sheet asphalt paving at $1.54 and asphaltic concrete at $1.40 per sq. yd. J. W. Wilimek, City Clk.

Cedar Rapids, Ia.—Bids reported desired until Mar. 19 by City Clk for 18 paving contracts, including asphaltic concrete, vertical fibre blocks, vitr. brick, creosoted wood blocks, etc.; also for curbing and guttering a number of streets.

***Emmetsburg, Ia.**—Contract for about 40,000 sq. yds. brick block pavements awarded by city to Sullivan & Zitterell, Webster City, at $102,000.

★**Mason City, Ia.**—Contract for about 75,000 sq. yds. asphalt pavements has been awarded by City Council to Bryant Asphalt Paving Co., Waterloo, at $1.59 per sq. yd.

Washington, Ia.—Bids reported desired until Mar. 8 by J. S. McElhinney, City Clk., for paving. Probable cost, $50,000. Bids desired on brick and reinforced concrete.

Duluth, Minn.—Bids reported desired until Mar. 12 by R. Murchison, Comr. Pub. Wks., for furnishing 200,000 gals. road oil.

McPherson, Kan.—Milton Hawkinson, City Clk., writes it is proposed to pave Ash and Marlin Sts. with asphaltic concrete on cement foundation, combined curb and gutter.

St. Louis, Mo.—Board Public Service voted to pave with asphalt Florissant Ave., at cost of $101,460.

★*Items marked thus give the names of parties awarded contracts.*

Saratoga, Tex.—Citizens voted $150,000 bonds for constructing roads between Batson and Saratoga and to Sour Lake.

Cushing, Okla.—E. W. Thiele, City Clk., writes it is proposed to pave Broadway, Cleveland, Harrison and Main Sts., about 40,000 sq. yds., on concrete foundation; material not yet selected for paving. Engineers, Benham Eng. Co., Oklahoma City.

Tulsa, Okla.—County Comrs. sold about $55,000 pike bonds.

★**Pueblo, Colo.**—Contract for constructing 7 miles street improvements in North Side Resident Dist. awarded by City Comrs. Feb. 15 to Anderson Hamill Constr. Co., Pueblo, at $137,000, to include storm sewers and pavements of gravel macadam.

Silver City, N. M.—Bids reported desired until Mar. 15 by City Council for paving with asphalt on a concrete base about 12 blocks of streets.

Bellingham, Wash.—Chas. Lindberg, City Engr., writes that it is proposed to pave S. Elk St., ¾ miles, cost $15,000; Monroe St., 1 mile, cost $20,000; Silver Beach Road, ¾ miles, cost $65,000; all with asphalt or 2-course concrete.

Chehalis, Wash.—County Comrs. have voted to construct roads as follows: road between Mineral and Morton, cost $75,000, Alder to Elbe $10,000, Morton to Kosmos $20,000, Pacific Highway south of Toledo $200,000, National Park Highway $50,000, and Mayfield Bridge $30,000.

Colville, Wash.—Plans are being prepared for constructing Springdale Hunter Boule. Rd.; cost $10,000. About $32,000 is to be spent for constructing Inland Empire Rd.

Goldendale, Wash.—About $150,000 is to be spent by county for constructing roads.

Lynden, Wash.—About $10,000 is to be spent by city for paving with asphalt 5th St.

McMurray, Wash.—Plans are being prepared by A. Strong, County Engineer, for grading and paving road into McMurray, cost about $12,000.

Olympia, Wash.—City Council voted to pave with concrete 11th St. to 20th St., between Adams and Jefferson Sts. on east and Capitol site bluff on west; also for paving Union and 11th Sts., from Columbia west, and for paving 12th, 13th, 14th and 15th Sts.

Appropriations reported to have been made by State Legislature for road work in various counties as follows: Adams, $63,000; Asotin, $11,000; Benton, $41,000; Chehalis, $112,000; Chelan, $55,000; Clallam, $37,000; Clarke, $56,000; Columbia, $28,000; Cowlitz, $40,000; Douglas, $33,000; Ferry, $9,000; Franklin, $37,700; Garfield, $16,000; Grant, $48,000; Island, $9,000; Jefferson, $21,000; King, $735,000; Kitsap, $19,000; Kittitas, $63,000; Klickitat, $43,000; Lewis, $72,000; Lincoln, $75,000; Mason, $18,000; Okanogan, $24,700; Pacific, $47,000; Pend Oreille, $20,000; Pierce, $266,000; San Juan, $8,900; Skagit, $66,000; Skamania, $15,000; Snohomish, $122,000; Spokane, $375,000; Stevens, $35,000; Thurston, $43,000; Wahkiakum, $6,100; Walla Walla, $94,000; Whatcom, $89,416; Whitman, $140,000; Yakima, $95,000.

Renton, Wash.—The County Comrs. propose to grade and gravel Bond Road No. 4 between Renton and Issaquah, at a cost of $80,000. Arthur P. Denton, Co. Engr.

Ritzville, Wash.—About $10,000 is to be spent by city for grading, graveling, constructing culverts and drains in College Hill.

Ritzville, Wash.—Bids desired about Apr. 1 by J. L. Cross, Co. Aud., for constructing a gravel road between Washtucna and Ralston, to cost about $40,000.

★**Seattle, Wash.**—Contract for constructing Mess Bros. Rd. awarded by Comrs. King County to Sloane Bros., Des Moines, Wash., at $10,107.

Contract is about to be let by City Council for paving 8th and 9th Aves. West.

We are informed that bids will not be received for about 60 days on improving 10th Ave., to include 24,000 sq. ft. concrete curb, 46,000 sq. yds. 5 in. brick block, etc. Plans for this work were completed some time ago by A. H. Dimock, City Engr.

★Contract for paving with brick 6th Ave. awarded to T. Ryan, Lowman Bldg., at $69,238.

Spokane, Wash. — Bids desired by County Comrs. (J. W. Starck, Co. Engr.), until Apr. 6 for paving Rockford, Waverly and Dennison Deer Park permanent highway with asphalt macadam, about 146,300 sq. yds. paving, and 150,000 cu. yds. earth and solid rock excav.; cost about $150,000. This work will be let in two contracts on lump sum bids.

It is proposed to pave Illinois Ave. and Fiske St., to be known as the arterial highway, 2½ miles in length, probably with asphalt on concrete foundation, cement curb, gravel fill; cost about $65,000 to be divided between city, county and property holders. Morton McCartney, City Engr.; J. M. Strack, Co. Engr.

Walla Walla, Wash.—M. A. Power, City Clk., writes bids desired about Mar. 30 for paving N. 2d, N. 9th and Whitman Sts. and Isaac Ave. Gravel bitulithic will probably be used on concrete or crushed rock foundation. Cost $30,000 to $40,000.

Portland, Ore.—Paving of Oregon St. with bitulithic is contemplated, cost $11,187.

Portland, Ore.—Following bids opened by City Council Feb. 24 for paving as follows: Grand Ave., Brooklyn St., and E. 6th St.; Warren Constr. Co. asphalt $1.48, gravel bitulithic $1.45, bitulithic $1.85; total about $23,000; Oregon Hassam Paving Co. with Hassam cost about $23,644.

Belvedere, Cal.—Plans have been completed by City Engineer for constructing waterfront road, cost about $15,000.

Crescent City, Cal.—Plans are being prepared for extending county road from Humboldt County Line to Crescent City, distance 31 miles.

Hanford, Cal.—County Supervisors have voted to pave 3 miles county highways with asphalt on 6 in concrete base.

★**Huntington Beach, Cal.**—Contract for paving with concrete and constructing sidewalks on 6th, 8th, 11th Sts., Magnolia and Acacia Aves. awarded to Johnson-Shea Co., Riverside, at $72,672.

★**Long Beach, Cal.**—Contract awarded Feb. 17, for paving with asphaltic cement, broken stone base, 2 alleys, to Fairchild-Gilmore-Wilton Co., 396 P. E. Bldg., Los Angeles, at 15 cts. per sq. ft. Henry B. Riley, Secy. Bd. Pub. Wks.

Oroville, Cal.—It is reported that bids will be opened about Mar. 25 for paving about 18 blocks. Address City Clerk.

Redding, Cal.—About $20,000 is to be spent by city for paving 5 blocks of streets with asphalt.

★**Riverside, Cal.**—Contract for constructing Route No. 9, Beaumont to Banning Rd., awarded to Conner Contr. Co., 709 Higgins Bldg., Los Angeles, at $11,361.

Following 3 lowest bids opened for constructing 22.6 miles macadam and oiled dirt road from Banning to Palm Springs: J. S. Hilend, Anaheim, $72,688; B. R. Davisson Constr. Co., Monrovia, $79,625; and National Constr. Co., Venice, $89,354.

Bids desired until Mar. 10 by County Bd. Superv., Riverside, for improving Route No. 17 and portion of Route No. 18, Bonning to Palm Springs, consisting in part of grading, draining, surfacing with stone and oiling approximately 22.6 miles of roadway.

Salinas, Cal.—All bids opened for constructing Spreckles Boule. have been rejected; according to reports new bids will be received about Apr. 1.

★**Santa Barbara, Cal.**—Contract for paving 6 blocks on Garden, New Mexico and Los Olivos Sts. awarded to F. R. Ritchie, San Francisco, at $24,208.

San Diego, Cal.—About $250,000 bonds have been purchased for constructing state highway between El Cajon and Descanso.

Pocatello, Idaho.—City Council will let contracts for grading and graveling in Dist. No. 12 west of river, first week in March; cost $39,701.

Sandpoint, Idaho.—City Council voted to pave business streets at cost of about $150,000.

Ottawa, Ont.—Following paving work contemplated by city.

Catherine St., Bank to Percy, with asphalt, 7500 sq. yds.; gutter, 4140 lin. ft.; cost $26,541.

Bay St., Welling to Catherine, asphalt, 12,150 sq. yds.; gutter, 8620 lin. ft.; cost $45,622.

Somerset St., Metcalfe to Driveway, Tarvia surface, 6670 sq. yds.; gutter, 3964 lin. ft.; cost $18,000.

★Contracts awarded by Water Works Com. Feb. 23, as follows: For cement to Wright & Co., Hull, Que., 49 cts. per 100 lbs.; castings, Thos. Lawson & Son, Wellington St., Ottawa, $2.40 per 100 lbs.; stone block, Thos. W. Tillson, Ottawa, $58 and $63 per 1000; lumber, W. C. Edwars, Sussex St., Ottawa, at total of $10,565; brick, Peerless Brick & Tile Co., Ottawa, $9.50 per M; scotch pipe to T. S. Kirby, Ottawa, and Canadian pipe to Barrch Bros., Catherine St., Ottawa. F. C. Askwith, City Engr.

Victoria, B. C.—City Council is considering paving Cormorant St.; cost about $75,000.

City Engineer estimates the cost of paving Ash St. at $10,000. Bids for construction, it is reported, will be asked about March 25.

STREET CLEANING AND GARBAGE DISPOSAL.

Items Arranged Geographically

Reading, Pa.—E. B. Ulrich, City Engr., writes that the additional unit of 25 tons capacity at the Millmont garbage disposal is being constructed, under a previous contract which was awarded a year ago when first unit was constructed on probation.

Rock Island, Ill.—Local press reports state that bids are desired by Martin T. Rudgren, City Clk., until Apr. 3 for constructing 12-ton garbage incinerating plant.

Joplin, Mo.—Dr. D. R. Hill, Comr. of Health, is reported to have recommended construction of a municipal incinerating plant.

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Items Arranged Geographically

Power Development—East Belfast, Me.—The Penobscot Bay Electric Co. (A. C. Hopkins, Supt., Belfast) is reported to be considering development of power at Sherman's lower mill at East Belfast, about 600 hp.

Dredging—Providence, R. I.—Bids desired until Mar. 30 by Co. John Mills, Corps Engrs., U. S. A., Newport, for dredging in Providence Harbor, R. I., advertised in Engineering Record.

Sea Wall—Dunkirk, N. Y.—See "Sewerage and Sewage Disposal."

★**Wharf—Ft. Hamilton, N. Y.**—Following are 4 lowest bids opened Feb. 20 by Quartermaster, Ft. Hamilton, Brooklyn, for repairs to wharf at this post: Frank J. Eisinger, 588 Atlantic Ave., Brooklyn, $1,455 (recommended for award); Louis J. Sieling, 171 Madison Ave., New York, $1,560; Riverside Constr. Co., 39 Cortland St., New York, $1,618; Jas. McFerran, 129 West St., New York, $1,750.

★**Dredging—New York, N. Y.**—Bids were opened Feb. 19 by Col. Fred V. Abbot, Corps Engrs. U. S. A., for dredging, and the following bids have been recommended for acceptance: Raritan Bay, N. J.: Morris & Cumings Dredging Co., 17 State St., New York, 11.82 cts. per cu. yd. scow meas., and Woodbridge Creek, Bay Dredging & Contr. Co., 215 Montague St., Brooklyn, N. Y., 35 cts. per cu. yd. place meas.

Pier—New York, N. Y.—Following are bids opened by R. A. C. Smith, Comr. Docks & Ferries, N. Y. City, Mar. 1, for pier at W. 46th St., North River, Contract 1401: Hollbrook, Cabot & Rollins, Corp., 331 Madison Ave., $244,449 (lowest bidder); Stillman-Delehanty, Verrio, 26 Exchange Pl., Jersey City, N. J., $250,000; G. B. Sperin, 90 West St., $257,560; Phoenix Constr. Co., 41 Park Row, $264,897; Geo. W. Rogers & Co., Inc., 29 Bway., $268,860; McHarg-Barton Co., 171 Madison Ave., $283,896; Henry Steers, Inc., 17 Battery Pl., $286,452; Oscar Daniels Co., 233 Bway., $289,000; H. P. Converse Co., 1 Union Sq., $316,030.

Ditch—Pikeville, N. C. — Bids will probably be received Apr. 1 for construction of ditches. For further information address W. K. Allen, Engr., Wilmington, N. C.

Drainage—Bowman, S. C.—There is reported to be a movement on foot here, looking to the construction of the Cow Castle drainage system, to include steel and concrete bridges; total cost about $180,000. E. N. Mittle, Pres. Bank of Bowman, reported interested.

Stone — Savannah, Ga. — Bids were opened Feb. 24 by Col. W. C. Langfitt, Corps Engrs., U. S. A., Savannah, for furnishing and placing stone for raising low places in jetty at Savannah Harbor (price given per ton): Gadsden Contr. Co., Savannah, $2.29; Beasley Contr. Co., Savannah, $2.34; Henry W. Williams, Alva, Okla., $2.50; Globe Dredging Co., Savannah, $2.24; R. S. Salos, Savannah, $1.99; Roderick G. Ross, Jacksonville, Fla., $2.17; Simons Mayrant Co., Charleston, S. C., $2.30.

Cotton Compress and Port Improvements—Jacksonville, Fla.—Local press reports state that Capt. Fred Bruce, Ch. Engr. Bd. Port Comn., will receive bids for a cotton compress for the municipal piers, to handle about 1000 bales of cotton.

★Contracts reported awarded by Port Comn. as follows: To Eppinger & Russell for creosoted piling, and to Artesian Well Drilling Co. for drilling well on dock site.

Lock Gates—Louisville, Ky.—No bids were opened Feb. 25 by Maj. J. C. Oakes, Corps Engrs., U. S. A., Louisville, for furnishing and erecting 3 mitering lock gates of 2 leaves each for Lock No. 1, Ohio River, as the advertisement was withdrawn.

Dredging—Toledo, O.—Following are bids opened Feb. 25 by Maj. P. S. Bond, Corps Engrs., U. S. A., Cleveland, for dredging Toledo Harbor, 706,000 cu. yds. dredging (price given per cu. yd., scow meas.): Duluth-Superior Dredging Co., Duluth, Minn., 13.8 cts.; John B. Breymann, Toledo, 13.9 cts., partial bid (557,000 cu. yds.); Greiling Bros., Green Bay, Wis., 17.5 cts.; Zenith Dredge Co., Duluth, Minn., 16.9 cts., partial bid (557,000 cu. yds.); Fitzsimons & Connell Dredge and Dock Co., Chicago, Ill., 15.9 cts.; Great Lakes Dredge & Dock Co., Cleveland, 11.5 cts. (low bid and recommended for award).

Dredging—Indiana Harbor, Ind.—Bids desired until Mar. 29 by Lieut.-Col. W. W. Judson, Corps Engrs., U. S. A., for dredging in Indiana Harbor, advertised in Engineering Record.

Pumping Station for Drainage Work—Quincy, Ill.—Bids were opened Feb. 19 by Edmund F. Perkins Eng. Co., First Natl. Bank Bldg., Chicago, for an electric pumping station for South Quincy Drainage and Levee Dist., Adams County, Ill., as follows:

Entire job: Farrar Pump & Mchry. Co., Granite Bldg., St. Louis, Mo., were low bidders, at $23,040.

Erection of house, 3 lowest bids: Schillinger Constr. Co., $12,780; Arrow Eng. Co., $12,791; Caldwell Eng. Co., $12,821.

For equipment, 3 lowest bids: United Eng. Co., $12,999; John T. Walbridge Eng. Co., $14,950; Arrow Eng. Co., $15,297.

Hydro Plant—Johnson Falls, Wis.—The Wisconsin Public Service Co., of Green Bay, is reported to be considering construction of a 300,000 hydro-electric generating station, at Johnson Falls. C. R. Phenicie, Gen. Supt., Green Bay.

★**River Wall—Cedar Rapids, Ia.**—Contract awarded Feb. 26 for constructing a river wall to Frank K. Hahn, Cedar Rapids, at $31,237. Other bids: Guarantee Constr. Co., Cedar Rapids, $44,909; R. A. Wallace, Cedar Rapids, $36,000; Gould Constr. Co., Davenport, $36,000; Boone Constr. Co., Boone, $37,931; Cedar Rapids Constr. Co., Cedar Rapids, $40,920. L. J. Storey, City Clk.

Drainage—Mt. Ayr, Ia.—The Bd. of Supervisors is considering establishment of the Platte River Drainage Dist. about 10,000 acres; the ditch will be 18 miles in length, slope ½ to 1; 22 ft. bottom with average depth of cut about 14 ft.; cost $100,000. P. S. Holbrook, County Engr., Mt. Ayr.

Ditch—Olivia, Minn.—Bids reported desired until Mar. 15 (readvertisement) by J. L. Johnson, Co. Aud., for County Ditch No. 57. Probable cost, $13,120.

★**Ditch — Ortonville, Minn.** — Contract awarded Feb. 17 for constructing Ditch 41, to John Haney, of Odessa. This work will require 43,000 cu. yds. excavation with plow and scraper and dredge; also one 14-ft. and one 12-ft. span concrete and steel bridge, etc. Estimated total cost, $8,733. M. E. Chamberlain, Engr., Montevideo.

★**Dam, Etc.—Harrisonburg, La.**—Following are bids opened Feb. 5 by Maj. J. R. Slattery, Corps Engrs., U. S. A., Vicksburg, for constructing Dam No. 2, lockkeeper's dwellings, etc.: (a) Midland Bridge Co., P. O. Box 1045, Kansas City, Mo., $182,454; (b) Miller Eng. Co., Southern Trust Bldg., Little Rock, Ark., $113,596 (recommended for award); (c) Blodgett Constr. Co., Kansas City, $201,984; (d) Geo. C. Hodgson, Dayton, O., $169,182.

	(a)	*(b)	(c)	(d)
1 lockmaster's dwelling, including privy	$4,400.00	$2,500.00	$5,000.00	$3,000.00
1 needlehouse	3,000.00	1,500.00	3,100.00	1,200.00
1 shop	1,120.00	600.00	1,200.00	430.00
1 storehouse	1,120.00	600.00	1,200.00	430.00
2,900 cu. yds. concrete	14.15	11.50	18.00	19.35
5,100 cu. yds. excavation	3.16	.70	3.00	5.00
1,200 cu. yds. block fill	20.00	10.00	22.00	19.35
1,800 cu. yds. earth fill	1.00	.70	1.25	...
300 cu. yds. gravel fill	3.20	1.00	3.50	4.00
1,600 tons heavy riprap fill	8.20	8.00	9.00	17.00
800 tons light riprap fill	8.20	7.00	9.00	4.00
9 lin. ft. tile gauge	5.00	5.00	4.00	5.00
2,350 lbs. coil chain	.12	.12	.10	.20
3,250 lbs. log chain	.11	.10	.09	.10
1,200 lbs. iron castings	.16	.15	.15	.20
12,600 lbs. wrought iron	.11	.10	.10	.20
10,000 lbs. steel castings	.20	.15	.18	.20
700 lbs. steel cover plates	.11	.12	.10	.20
10,000 lbs. steel reinforcement	.07	.05	.06	.20
38,000 lbs. structural steel	.11	.12	.12	.20
4,360 sq. yds. riprap pavement	4.30	2.00	5.00	4.00
4,360 sq. yds. concrete paving	2.70	2.70	3.00	3.00
3,500 lin. ft. cluster piles	1.20	.60	1.00	.40
7,200 lin. ft. foundation piles	1.10	1.00	1.20	2.00
50 M ft. lumber in cofferdam	250.00	60.00	275.00	100.00
7.8 M ft. cap blocks	120.00	100.00	130.00	40.00
18.5 M ft. needles	200.00	100.00	190.00	100.00
5 M ft. sheathing	83.00	50.00	80.00	20.00
16.4 M ft. common sheet piles	125.00	75.00	130.00	100.00
176.5 M ft. triple-lap sheet piles	190.00	100.00	200.00	100.00

★*Items marked thus give the names of parties awarded contracts.*

Ditch—Slayton, Minn.—New bids desired until Mar. 24 by E. V. O'Brien, Co., Aud., for constructing Judicial Ditch No. 3; approximate length of main ditch, 24,600 ft.; average depth 8 ft.; 113 branches aggregating in length 181,600 ft.; tile, 6 to 26 in.; 6400 ft. open ditch; 22,272 cu. yds. to be removed. Estimated total cost, $72,882.

★**Ditch Work—Harlingen, Tex.**—Contract awarded Feb. 13 by County Irrigation Dist. No. 1 (A. S. Lowe, Pres.) to W. E. Callahan Constr. Co., San Benito, for construction, repair, excavating and removal of silt, dirt and all obstructions to the ready flow of water along and through mains, laterals and irrigation ditches now constructed and in said district, on the estimated length of 17 miles and aggregate yardage of 190,000 cu. yds.

Irrigation Ditch—Silver City, N. M.—It is reported that J. W. Shelley will construct a new irrigation ditch, 1000 ft. long, with average depth of 10 ft.

Hydro Plant—Socorro, N. M.—The Socorro Power & Lumber Co. reported to be considering constructing a hydro electric plant in Cooney Canyon.

Cofferdam—Seattle, Wash.—Following are the totals of bids opened Feb. 17 by Maj. J. B. Cavanaugh, Corps Engrs., U. S. A., Seattle, for excavation, removal of sections of an existing cofferdam and constructing of a new cofferdam at the Puget Sound Lake Washington lock site, Seattle: Erickson Constr. Co., Downs Blk., Seattle, $56,777, and Puget Sound Bridge & Dredging Co., Seattle, $75,815.

★**Pipe Line—Sunnyside, Wash.**—Contract awarded by U. S. Reclamation Service to the Pacific Pipe & Tank Co., of Portland, Ore., for construction of wood stave pipe for the Snipes Mountain pumping plant of the Sunnyside Unit, Yakima project, at $11,094 (bids opened Jan. 30). Contract calls for 905 ft. of 60-in. and 3355 ft. of 30-in. pipe and the necessary steel bands and shoes in place.

Lateral Canal—Sunnyside, Wash.—Lowest bid opened Feb. 24 by U. S. Reclamation Service for lateral canal and pipe trench on Yakima project, Sunnyside Unit, was submitted by Mathieson & Mudd, of Sunnyside; they bid for Schedule 1, $2,061, and Schedule 2, $1,550.

Lake Development, Pumping Plant, Etc.—Portland, Ore.—The Oregon State Legislature has ratified and the Governor has signed the bill granting to Jason C. Moore, of New York, a lease of Lake Summer and Lake Albert, and Sheppard & Brock, Yeon Bldg., Portland, attorneys and representatives of Jason C. Moore, are reported to have been authorized to proceed with the preliminary work. Lake Summer and Lake Albert are situated in Lake County, about 30 miles apart, and approximately 270 miles south of the intersection of the Deschutes and Columbia Rivers. The lakes contain salt deposits which the syndicate led by Mr. Moore plans to transport by pipe lines to the confluence of the two rivers, where water power is available and where transportation may be had both by water and rail. According to present estimates the pipe lines will be built of Oregon fir, 14 in. in diam., and cost $2,000,000. Large pumping plants at lakes, costing about $500,000, will be used to pump fluids up an elevation of about 300 ft. for first 25 or 30 miles of pipe line, and from that point to junction of two rivers a gravity flow system will be installed. Two sites near the junction are offered as location of the $5,000,000 manufacturing plant to be erected for the manufacture of nitrates, potassium, sodium, chlorids, carbonate, bicarbonate, caustic sodas, baking and bleaching powders, and other materials to be obtained from the lake deposits, plans for which have been prepared by J. G. Kelly, Chamber of Commerce Bldg.

Irrigation—Chico, Cal.—It is reported that work will be started at once by the Great Western Power Co., of San Francisco, and the Fleishacker interests, in construction of a $400,000 irrigation ditch here.

★**Pier—Venice, Cal.**—Contract for rebuilding the Windward Ave. pier reported awarded to Chas. W. Corbaley, of Los Angeles; cost reported to be about $100,000.

Irrigation Work—Payson City, Utah.—Following are totals of bids opened Feb. 24 by U. S. Reclamation Service, Provo, for constructing 49,000 cu. yds. canal excav. and 3670 cu. yds. reinforced concrete; work to be located near Payson City. Wasatch Grading Co., Dooley Blk., Salt Lake City, $47,084; Henser & Sim, Salt Lake City, $47,953; Ryberg Bros., Logan, $48,413; Reynolds-Ely Constr. Co., Springville, $48,865; Messmer & Rice, Marsh Strong Bldg., Los Angeles, Cal., $49,359; Spanish Fork Grading Co., Spanish Fork, $54,476.

★**Breakwater—Fort William, Ont.**—Contract reported awarded to Thunder Bay Constr. Co. for extension to the breakwater in Ft. William at about $250,000.

Breakwater, Etc.—Victoria, B. C.—The Dominion Government reported to have appropriated $1,400,000 to complete construction of breakwater and outer piers in the local harbor, and $250,000 for completion of drydock at Esquimalt.

ELECTRIC RAILWAYS.

Items Arranged Geographically

Boston, Mass.—Following are 3 lowest bids opened Feb 25 by Boston Transit Comn. (B. Leighton Beal, Secy.) for building Sect. H, Dorchester Tunnel: T. H. Gillespie Co., New York, $554,750; Converse & Co., 88 Broad St., Boston, $561,491; Estate of J. P. O'Riorden, 1 City Sq., Charlestown, Mass., $581,470. Length of tunnel about 2200 ft., to be mainly of reinforced concrete and consist of a single span double-track tunnel, to be built by the cut and cover method; work also includes a pump well, and emergency exit and sewer changes.

★**Brooklyn, N. Y.**—The Public Service Comn. for the First Dist., New York, has approved proposed award by the N. Y. Municipal Ry. Corp. for constructing 9 stations on the Sea Beach line to Post & McCord, Inc., 101 Park Ave., New York, at $331,163. The Sea Beach line is a reconstructed 4-track railroad, which will join the 4th Ave. subway at 65th St., Brooklyn, and run from there to Coney Island. The reconstruction of this line is about completed, with the exception of the stations to be constructed at 8th Ave., Ft. Hamilton, New Utrecht, 18th, 20th and 22d Aves., Kings Highway, Ave. U and 86th St.

New York, N. Y.—No bids were opened Feb. 26 by Public Service Comn. for First Dist., 154 Nassau St., for construction of Sect. 4 of the Routes 4 and 36, a part of the Bway-4th Ave. Rapid Transit R.R. in Boro. Manhattan, and the date of letting has been indefinitely postponed. Work consists of a 2, 4 and 6 track underground railroad northerly under 7th Ave., from 51st St. to 59th St. and easterly under 59th St. to a point 22 ft. west of westerly building line of the 7th. Ave. extended.

Lancaster, Pa.—Surveys have been completed by Conestoga Traction Co., R. B. Hull, Gen. Mgr., for a 13-mile branch to be extension of Lancaster Coatesville division.

McConnellsburg, Pa.—McConnellsburg & Ft. London Ry. Co. is chartered to build a 9-mile electric railway between McConnellsburg and Ft. London. Capital $60,000. Among incorporators: Edw. J. Post and D. H. Patterson.

Charleston, W. Va.—Charleston Interurban Ry. Co., S. Miller Gallaher, Ch. Engr., contemplates extending Kanawha Valley Traction Line to Montgomery, W. Va., 25 miles east of Charleston.

Louisville, Ky.—Construction of 3-mile electric railway to connect Olympian Springs Hotel in Bath County with Chesapeake & Ohio R. R. is contemplated. Among those interested is Frank A. Best, Jeffersonville, Ind., and Wm. Henry Jones, Glasgow.

Lafayette, Ind.—Contracts are about to be let for 250,000 ties for constructing Lafayette & Northwestern Ry., between Lafayette and West Point. O. L. Brown, Gen. Mgr.

Clovis, Cal.—Contracts about to be let by Fresno Interurban Ry. Co. to construct 6½ miles electric railway between Barton and Clovis, also 1½ miles track in Fresno.

Colusa, Cal.—Plans are being prepared by Northern Electric Ry. Co. to rebuild section of road recently destroyed by floods between Meridian and Colusa. About 3 miles of track to be replaced. W. A. McGovern, Gen. Mgr., Chico.

Lewiston, Idaho.—Application for a charter has been made by Lewiston-Clarkston Transit Co. to build electric railways in Lewiston-Clarkston Valley. Capital $500,000. Among incorporators: A. G. Nortz and Eugene A. Cox, Lewiston.

Toronto, Ont.—Bids desired until Mar. 16 by T. L. Church (Mayor), Chmn. Bd. Control, for furnishing Lansdowne Ave. car line materials as follows: (a) track material Contract "A" (rails, plates, bolts, spikes, etc.); (b) overhead line material Contract "B" (wire, fittings, etc.); (c) oak ties, Contract "C," advertised in Engineering Record.

RAILROADS.

Items Arranged Geographically

Norfolk, Va.—The State Corp. Comn. reported to have authorized the Norfolk & Western Ry. Co. (J. E. Crawford, Ch. Engr., Roanoke) to construct a low grade connecting line from a point near Burkeville to Pamplin, a distance of about 37 miles.

Radford, Va. — The Radford Willis Southern Ry. Co. reported organized with a capital of $300,000 to construct a standard gauge steam road from Radford to Willis along Little River and Indian Creek, 25 miles in length. R. L. Gardner and A. Geisen, of Radford, are among the incorporators.

Minneapolis, Minn.—The Red River Valley Ry. Co., reported formed with principal office in Minneapolis, to construct a railroad from Fargo, N. D., to Winnipeg, Man. It will follow the valley of Red River and enter Minnesota in Kittson County. Incorporators: W. H. Graves and C. M. Drew, of Minneapolis, and Robt. Hamilton, of Milwaukee, Wis.

Kansas City, Mo.—The Missouri, Oklahoma & Gulf Railroad (Wm. Coughlin, Gen. Mgr., Muskogee, Okla.) is reported to have decided to sell receivers certificates in the sum of $750,000, the money sections of road and for other general repairs.

Roswell, N. M.—Alpheus Judd, of Lubbock, Tex., and J. S. Grisham, of Sweetwater, Tex., are reported interested in construction of a railroad from Roswell to Lubbock, Tex., or Plainview.

Portland, Ore.—H. W. Holmes, of the Dept. of Pub. Wks., has completed estimates for elimination of grades along right-of-way of the line of the Oregon-Washington Ry. & Navigation Co., from E. 28th St. to the city limits: total cost, $750,000. The work will probably be let in separate contracts as follows: E. 37th St., $67,000; E. 42d St., $32,300; E. 47th St., $59,600; E. 52d St., $26,000; E. 60th St., $36,000; Barr Road, $63,000; E. 74th St., $26,000; E. 82d St., $26,500. All viaducts will be of reinforced concrete.

PUBLIC BUILDINGS AND SCHOOLS.

Items Arranged Geographically

Belfast, Me.—A $25,000 school is to be erected here. Address School Bd.

Brunswick, Me.—Allen & Collins, of Boston, Mass., and Felix A. Burton, of Brunswick, engaged as associate architects for new high school, to be 2 story. Cost, $50,000.

Manchester, N. H.—School Bd. voted in favor of $350,000 for a site and new high school building.

Boston, Mass.—Hospital Trus., through the signing of a bill by the Governor, will take steps at once to remodel the buildings in West Roxbury formerly used as a parental school, into a convalescent home for children. About $224,000 will be used remodeling the buildings and erecting additions.

★Contract for erecting the Ward C at Consumptive Hospital, River St., Mattapan, awarded to J. E. Locatelli Co., Inc., at $60,384. The next three lowest bidders were: Leighton, Mitchell Co., $61,745; C. S. Cunningham Constr. Co., $62,576, and J. Caddigan Co., $62,900. Contract for plumbing awarded to Wm. N. McKenna Co. at $6,770, and for heating to Pierce & Cox, at $7,897.

Greenfield, Mass.—Plans being prepared by W. H. & H. McLean, 110 Tremont St., Boston, for a 1-story brick grammar school, 60 x 150 ft.

Maynard, Mass.—High school, brick construction, to cost $60,000, is contemplated.

Swansea, Mass.—Mrs. Frank S. Stevens has given to the town $50,000 with which to erect a high school.

Westfield, Mass.—The School Com. has asked for a 16-room school, and the Fire Dept. has recommended a new fire station.

West Springfield, Mass.—Citizens reported to have voted $120,000 bonds for erecting high school.

At recent town meeting citizens authorized the erection of a library. Andrew Carnegie has offered $25,000 toward the erection of this building.

Worcester, Mass.—Cost of erecting 6-room addition to Cambridge St. School estimated at $53,327. Address Bd. Educ.

Providence, R. I.—Reported bids desired by W. E. Hartwell, Comr. Pub. Wks., for erecting the Laurel Hill Ave. School; cost $190,000. Clarke & Howe, 76 Weybosset St., Archts.

Plans about completed by Murphy & Hindle, 146 Westminister St., for the Mt. Pleasant School.

Ellington, Conn.—Bids desired until Mar. 9 by the Bldg. Committee (J. H. Lynch, Chmn.), for erecting town hall. J. Henry McCrarey, Archt., 18 N. Park St., Rockville.

Hartford, Conn.—Lowest bid received for iron and grill work for the new municipal building submitted by Berger Mfg. Co., Canton, O., at $28,924.

Milford, Conn.—Erection of town hall, costing $75,000, is under consideration. Address Town Clerk.

New Haven, Conn.—Bids desired until Mar. 20 by J. B. Tower, Chmn. Bldg. Com., 181 Church St., New Haven, for masonry, carpentry, electric heating and plumbing work required in erection of a fire engine house for Westville School Dist., Fountain and Harrison Sts., Westville. Brown & Von Beren, Archts., Chamber of Commerce Bldg., New Haven.

★**Stamford, Conn.**—Contract for erecting U. S. Post Office awarded to Chas. McCaul Co., Philadelphia, Pa., at $118,270.

Buffalo, N. Y.—Reported Bd. Aldermen considering the building of a stadium; cost estimated at $280,000.

Long Island City, L. I., N. Y.—Late official reports state new bids desired Mar. 15 by C. B. J. Snyder, Supt. School Bldgs., New York City, for general construction, also plumbing and drainage of School 93, Boro. Queens. Security, $100,000 and $8,000, respectively.

Mount Vernon, N. Y.—Bd. Educ. said to be considering erection of school on 6th Ave. and 2d St.

New York, N. Y.—Bids desired until Mar. 25 by O. Wenderoth, Superv. Archt., Washington, D. C., for the construction (including metal shelving equipment, interior lighting fixtures and electric conduit and wiring) of an interior safety vault for the U. S. Appraiser's Warehouse, New York.

Orchard Park, N. Y.—Plans being prepared for a 2-story and basement brick and steel 16-room school to be erected by the School Bd. (M. Pierce, Chmn.) at a cost of $50,000.

Watervliet, N. Y.—Bids desired until Mar. 22 by Bd. Contract & Supply (Wm. B. Daubney, Clk.) for erecting a city hall, advertised in Engineering Record. Cost reported at $50,000. Demers, Mosley & Campaigne, Archts., Troy.

Whitesboro, N. Y.—Erection of a school on Main St., costing $75,000, is reported under consideration.

Bayonne, N. J.—Trus. of Hudson County Parental Home, Jersey City, have approved the plans of John T. Rowland, Jr., Jersey City, for the parental home to be erected in Bayonne at a cost of $40,000. Bids for construction will soon be asked.

Garfield, N. J.—Bd. Educ. (Chas. H. Wright, Pres.) contemplates erecting a 2-story high school costing $90,000.

Irvington, N. J.—Bids desired until Mar. 10 by John W. Wehman, Town Clk., for $80,000 school bonds.

Newark, N. J.—Bd. Freeholders has authorized issuing of $57,000 bonds for erecting the Essex County Parental Home.

Trenton, N. J.—Plans being prepared by Geo. S. Drew, State Archt., for a 4-story stone and brick hospital to be erected for the State Hospital; cost $60,000.

Bethlehem, Pa.—Plans being prepared for a 3-story high school to cost $175,000. Address Bd. Educ.

Canton, Pa.—Citizens voted in favor of issuing $28,000 bonds to erect a high school.

Erie, Pa.—Bd. Educ. reported to be considering erection of 2 new high schools.

Johnsonburg, Pa.—Plans for First Ave school being prepared by Clyde S. Adams, Philadelphia. A 16-room building is contemplated.

Johnstown, Pa.—Trus. of Memorial Hospital reported to be considering erecting addition to hospital costing $50,000.

Kennett Square, Pa.—Lowest bid received by School Bd. for erecting 2-story brick school was submitted by Thos. F. Grady at $24,128. Clyde S. Adams, Archt., Philadelphia.

McKeesport, Pa.—N. T. Morton, Secy. Bd. School Dirs., writes that bids desired about Apr. 1 for erecting the proposed high school; it will be of brick, 2 stories, 140 x 190 ft., and cost $200,000. Vrydaugh & Wolfe, Archts., Pittsburgh, Pa.

Meadville, Pa.—Harry D. Whitfield, New York, N. Y., selected to prepare plans for the Carnegie Hall of Chemistry to be erected at Allegheny College. Probable cost, $40,000.

Pittsburgh, Pa.—Reported Bd. Pub. Educ. intends asking soon for bids on erecting the first section of the Homewood-Brushton High School. This section is to cost $265,000; the building complete is to cost about $700,000. C. L. Woolridge, Bldg. Supt.

★Contract for excavating for the South Hills High School at Mt. Washington awarded to Wm. J. Payne, Jr., Co., at $24,823.

Rochester, Pa.—G. H. Karcher, Secy. Bd. Educ., writes new bids desired until Mar. 26 for the general construction, plumbing and electric wiring of new high school. Contract for ventilating and heating has been awarded to the McGuiness Co., of Pittsburgh; cost of building complete $85,000.

West Reading, Pa.—Bids desired until Mar. 15 by School Dist. Boro. of West Reading (Chas. S. Merkel, Secy.), for erecting a high school at 4th and Franklin Sts.; also separately for heating, ventilating, plumbing and drainage and electric wiring. Edw. Z. Scholl, Archt., Reading.

Washington, D. C.—Plans being prepared for a 3-story and basement brick and limestone addition to the Casualty Hospital on Massachusetts Ave. and 7th St. n. e.; cost $40,000.

Parkersburg, W. Va.—Bd. Educ. taking steps to erect the high school.

Spartanburg, S. C.—School Bd. contemplates erecting a school on the Northside. L. D. Proffitt, Archt., Spartanburg.

Hawkinsville, Ga.—See "Water Works."

Rome, Ga.—Bids desired until Mar. 22 by J. D. Hanks, Mayor, for furnishing all material required in the general work,

★Items marked thus give the names of parties awarded contracts.

consisting of excavation, concrete work, reinforced concrete work, common and face brick, hollow tile, backing and partitions, terra cotta work, steel work, roofing, carpentry, mill work, ornamental and plain marble and tile work, ornamental iron work, cement work, etc.; also separate bids for plumbing, heating, electric wiring, etc., for a Municipal building covering an area of approximately 140x80 ft., with rear wing covering an area of 78x107 ft., consisting of basement, first and second floor, to be erected on Broad St. and 6th Ave. A. TenEyck Brown, Archt., Realty Trust Bldg., Atlanta.

P. Thornton Marye, Atlanta, engaged to prepared plans for the municipal hospital; probable cost $50,000.

Jacksonville, Fla.—Bd. Pub. Instruction and Bd. Bond Trus. have authorized erection of 11 new buildings and 9 additions to the white schools and 9 new buildings and 1 addition to colored schools, the cost to be about $965,000.

Huntsville, Ala. — Bids desired until Mar. 16 by J. D. Humphrey, Mayor, for $40,000 school bonds.

Covington, Tenn.—Following are four lowest bids received and opened Feb. 20 by U. S. Superv. Archt., Washington, D. C., for constructing U. S. Post Office at Covington (a) limestone, (b) sandstone: Geo. W. Stiles Constr. Co., Chicago, Ill., (a) $36,500; J. L. Crouse, Greensboro, N. C., (a) $37,990, (b) $38,490; Colonial Constr. & Supply Co., Charlottesville, Va., (a) $38,279; Rogers & Kaiser, Chicago, Ill., (a) $38,422, (b) $39,500; Algernon Blair, Montgomery, Ala., (b) $40,000; Potters Lumber Co., East Liverpool, O., (b) $39,260.

Akron, O.—Bids desired until Mar. 20 by D. P. Stein, Dir. Pub. Safety, for furnishing material and erecting a fire station at what is now 57 S. Bway. Fichter & Brooker, Archts., 2d Natl. Bank Bldg.

Canton, O.—Bids desired until Mar. 17 by Bd. Educ. (W. C. Lane, Clk.) for excavating and shoring for a high school.

Columbus, O.—See "Miscellaneous."

Dayton, O.—New bids desired until Mar. 29 by Bd. Educ. (C. J. Schmidt, Clk.) for furnishing material and erecting Dayton View School, Cambridge, Yale and Euclid Aves. Schenck & Williams, Archts., Arcade Bldg. Probable cost $135,000.

Chillicothe, O.—Marriott, Allen & Hall of Columbus, are archts. for the addition to the court house. Address Co. Comrs.

Cleveland, O.—Bids desired until Mar. 22 by Clerk Bd. Educ., for furnishing material and erecting an annex on the Hazeldell School property, E. 123d St. near St. Clair Ave. Bids for labor and material must be stated separately. Bids desired as a whole or separately for masonry, iron and steel, carpentry, sheet metal roofing, asphaltic rock mastic work, ventilating and heating, plumbing, sewerage and gas fitting, electric wiring, etc. Frank G. Hogen, Dir. Schools.

Cleveland, O.—Reported bids desired by Bd. Educ. about March 15 for erecting the following building plans for which have been prepared by School Archt. W. R. McCormack: 3-story grade school on Almira Ave. and 98th St. to be brick, stone trimming, reinforced concrete and steel, and cost $200,000; 3-story 17-room Central School on Central Ave. and E. 65th St., brick, reinforced concrete and sandstone trimming, cost $175,000, and Haseldell School, 3 story, on E. 123d St. and St. Clair Ave., cost $150,000.

★Contract for erecting the Corlett School awarded to Bolton & Pratt Co., Columbia Bldg. Cost about $95,000. W. R. McCormack, Archt., Bd. Educ.

Minerva, O.—Citizens voted in favor of issuing $65,000 bonds for erecting a high school.

McCutchenville, O.—Bids desired until Mar. 15 by Bd. Educ. (J. L. Bare, Clk.) for furnishing material and erecting a 2-story and basement fireproof centralized school. Albert Pretzinger and Edw. P. Musselman, Archts., Reinbold Annex, Dayton.

Morral, O.—The citizens of Morral and Salt Lake Townships have voted in favor of issuing $37,000 bonds for erecting a school in Morral.

Newark, O.—State Bd. Administration, Columbus, is considering erecting a building for the New School for Deaf and Dumb Children near Newark, but appropriation not yet available.

Owens, O.—At a recent election the citizens of Pleasant Township voted to consolidate the schools of the township and issue $35,000 bonds to erect a school about 1 mile east of Owens.

Ravenna, O.—Citizens voted in favor of issuing $38,000 bonds to erect a consolidated school in Ravenna Township.

★**Ripley, O.**—Contract awarded Feb. 18 by Bd. Educ. (E. E. Swisher, Clk.) for erecting 2-story and basement, 68x128 ft. high school, to John A. Jewell & Son Co., Cincinnati, at $29,290. Next 3 lowest bids: A. J. Clark Co., Cincinnati, $29,360; Ben Bowman, Newport, Ky., $29,850; McDowell & Case, Maysville, Ky., $30,172. Weber, Werner & Adkins, Archts., Mercantile Library Bldg., Cincinnati.

Springfield, O.—Citizens of Salem Township have voted in favor of issuing $35,000 bonds to erect a school.

Toledo, O.—Bids were opened Feb. 15 by Bd. Educ. for erecting the Detroit Ave. School, and the only bid received for the entire work, excepting steel window sashes, was submitted by A. Bentley & Sons Co. at $208,208. Next three lowest bids for general work, not including heating, plumbing, electric work, steel sashes, etc., were: A. Bentley & Sons Co., $161,-161; Walls, Boch & Kuhlman, $175,000; and H. J. Spieker Co., $184,330.

Anderson, Ind.—City Council intends erecting city hall on N. Main St., costing $75,000.

Goshen, Ind.—Bd. Educ. reported to be considering erection of vocational school to cost $50,000.

Evansville, Ind.—Bids desired until Mar. 15 by Bd. Educ. (A. L. Fisher, Clk.) for new addition and improvements to the Delaware School, Columbia and Garvin Sts.; also separate bids for remodeling and installing ventilating and heating apparatus. F. J. Schlotter, Archt., 113 Upper 4th St.

Indianapolis, Ind.—School bonds amounting to $75,000 have been sold.

Lafayette, Ind.—Plans about completed by J. H. Alexander & Sons for an addition to the high school to be 2 story brick and stone.

Muncie, Ind.—Elmer E. Dunlap, Indianapolis, selected to prepare plans for the school to be erected at 4th and Residence Sts.

Terre Haute, Ind.—All bids opened Feb. 20 by Bd. Co. Comrs. for erecting a school and chapel for County Home for Orphans have been rejected, being above the estimate; it is not yet known when new bids will be received. Nathan G. Wallace, Co. Aud.

Detroit, Mich.—Bids desired until Mar. 23 by Bd. Educ. (Chas. A. Gadd, Secy.,) for Garfield School extension, Rivard and Frederick Sts.

Bids desired until Mar. 30 same place as above for erecting Southeastern High School, Goethe St. and Fairview Ave.

Bids desired as a whole or separately for masonary, carpentry, ventilating, heating, plumbing and electric wiring for above schools.

Belleville, Ill.—Belleville Township High School Bd. reported to be considering erecting a school costing $225,000.

Chicago, Ill.—Reported bids about to be asked for erecting the recreation building on the new municipal recreation pier. Michael Zimmer, City Comptroller, may be able to give further information. Cost about $150,000.

Lewistown, Ill.—Bids reported desired until Mar. 8 by Clerk Bd. Educ. for erecting a high school. N. S. Spencer & Sons, Archts., Champaign.

Moline, Ill.—Bd. Superv. engaged C. D. McLane, Rock Island, to prepare plans for a $75,000 jail.

Rockford, Ill.—Reported bids will be asked in the late spring by Bd. Educ. for erecting a 10-room school; cost about $75,000.

Rock Island, Ill.—O. Z. Cervin, of Rock Island, engaged by Bd. Educ. to prepare plans for the school to be erected on Irving School lot; cost $50,000.

Green Bay, Wis.—Bids desired about Mar. 15 by the Wisconsin Deaconess Assoc. for the erection of a 3-story fireproof brick hospital, 46 x 108 ft. For further information address P. T. Benton, Archt., Green Bay.

Independence, Wis.—Bids desired until Mar. 11 by Bd. Educ. Joint School Dist. No. 6, Independence and Burnside (Dr. C. F. Peterson, Clk.), at Independence, for furnishing material and erecting a school at Independence; also bids for heating, ventilating, plumbing and electric wiring. Olin H. Round, Archt., Oppenheim Bldg., St. Paul, Minn.

★**Oshkosh, Wis.**—Contract for erecting addition to the Normal School awarded as follows: General contract to Sterling Eng. & Constr. Co., Milwaukee, $69,450; heating and ventilating to Downey Htg. & Supply Co., Milwaukee, $7,850; plumbing, W. S. Patterson Co., Appleton, $4,-183; marble and tile work, Breister Marble Co., Milwaukee, $9,972.

Ames, Ia.—The Village of Cole, Storry County, has voted in favor of $33,000 bonds to erect a school.

Ames, Ia.—City Council will about Mar. 15 ask bids for erecting the city hall, plans for which have been prepared.

Manson, Ia.—Bids desired by Clk. Bd. of Education, until Mar. 25, for erecting high school to cost about $40,000. Architect, E. O. Damon, Jr., of Ft. Dodge.

Pierson, Ia.—Bids reported desired until Mar. 15 by W. R. Mills, Secy. Bd. Educ., Pierson, and J. H. Craddock, Archt., Continental Bldg., Omaha, Neb., for erecting a 2-story and basement, 64 x 100 ft., school at Pierson. Probable cost $30,000.

Scranton, Ia.—Citizens voted in favor of issuing $36,000 bonds for erecting school in Scranton Independent School Dist.

Anoka, Minn.—Bd. Educ. reported in favor of erecting 6-room school costing $25,000.

Crosby, Minn.—School Bd. of Independent School Dist. No. 51 reported to be considering erecting a high school costing $150,000.

Minneapolis, Minn. — Lowest bid received Feb. 17 by State Bd. Control, St. Paul, for erecting the biology building at the Univ. of Minnesota were: general construction, Fleischer-Rose Constr. Co., Minneapolis, $139,000; heating, ventilating and plumbing, Healy Plub. Co., St. Paul, $29,698; electrical work, Minneapolis Electrical Equipment Co., $16,990; elevator, Lee & Hoff Mfg. Co., St. Paul, $2,788.

Proctor, Minn.—School Bd. is considering plans for a $40,000 high school, 2 stories high.

Stillwater, Minn.—House Appropriation Com., St. Paul, has recommended a bill authorizing the State Bd. Control to appropriate $57,000 out of the Stillwater prison fund for the construction of a woman's prison building and 2 barns.

Independence, Kan.—Rose & Peterson, of Kansas City, have been selected to prepare plans for a city hall; cost about $38,000. G. H. Krienhagen, City Clk.

Lawrence, Kan.—Plans being prepared by W. F. Gernandt, Karbash Bldg., Omaha, Neb., for erection of 3 brick and concrete buildings, to cost $60,000. Julia McGrath, Clk. Bd. Educ.

Wichita, Kan.—Plans of A. A. Crowell and Geo. W. Van Meter, Caldwell Murdock Bldg., selected for the fireproof school to be erected for the Webster Dist. at Emporia Ave. and Pine St. and cost about $50,000. Bids for construction will soon be asked by Bd. Educ.

Wichita, Kan.—The plans of Crowell & Van Meter, of Wichita, were accepted Feb. 19 for a school. J. L. Leland, Secy. Bd. Educ.

Chappell, Neb.—Citizens voted in favor of issuing bonds for erecting court house.

Harvard, Neb.—Bids desired until Mar. 15 by J. E. Tillotsan, Secy. Library Bd., for erecting a public library.

Sargent, Neb.—Bids reported desired until Mar. 17 by Bd. Educ. for erecting a 2-story and basement, 98.8 x 63 ft., high school. Oscar R. Kirsche, Archt., Grand Island.

Sidney, Neb.—Bids reported desired until Mar. 8 by Bd. Educ. (Leroy Martin, Dir.) for erection, including heating, ventilating and plumbing of high school. John Latenser & Sons, Archts., Omaha.

York, Neb.—Bids desired until Mar. 18 by Bd. Directors, Evangelical Lutheran Hospital (O. Batz, Secy.), for erecting a 2-story and basement hospital, including wiring, plumbing and heating. F. Gernandt, Archt., State Bank Bldg., Omaha.

Hayti, S. D.—Bids desired until Mar. 24 by David Sour, Chmn. Bd. County Comrs., for $60,000 bonds issued for purpose of erecting court house and jail and providing site therefor.

★**Sioux Falls, S. D.**—Contract for erecting school awarded to Sioux Falls Constr. Co., Sioux Falls, at $57,890.

★**Yankton, S. D.**—Contract for erecting a building at Yankton College awarded to Wold Constr. Co.; cost, $85,000.

Cheyenne, Wyo.—Legislature reported to be considering enlarging the capitol at a cost of $150,000.

Anaconda, Mont.—Erection of an annex to the high school, costing $75,000, is reported under consideration.

Bigelow, Mo.—Bids reported desired until Mar. 10 by Frank Walters, Clk. Bd. Educ., for erecting a 2-story and basement, 52 x 81 ft. school. W. F. Schrage, Archt., 42 E. 32d St., Kansas City, Mo.

New Madrid, Mo.—Bids desired until Mar. 16 by S. R. Hunter, Jr., Co. Treas., for $40,000 courthouse and $10,000 jail bonds.

★**Amarillo, Tex.**—Contract for erecting U. S. Post Office awarded to M. Yeager & Son, Danville, Ill., at $177,038.

Corpus Christi, Tex.—Bids desired until Mar. 19 by O. Wenderoth, Superv. Archt., Washington, D. C., for the construction, complete (including mechanical equipment, except elevator, and approaches) of U. S. Post Office and Courthouse.

Denton, Tex.—Citizens have voted $110,000 bonds for erecting school.

Ft. Worth, Tex.—Co. Comrs. accepted plans for the new jail; cost $350,000.

Jefferson, Tex.—Citizens voted in favor of erecting a $25,000 school.

San Angelo, Tex.—Trus. of Pub. Schools have had plans prepared for a high school costing $80,000, but have not yet decided upon the site.

Fall City, Wash.—Reported bids desired until about March 20 by School Bd. for erecting the school to cost $50,000; Stephen & Stephen, New York Blk., Seattle, Archts.

Olympia, Wash.—Senate passed Capitol Comn. bill authorizing between $2,500,-000 and $4,000,000 to pay debts of the capitol fund and enable resumption of work upon the new group plan State house.

Seattle, Wash.—Governor Ernest Lister has approved the appropriation of $150,-000 for erecting a new building at the Univ. of Washington.

Seattle, Wash.—Lowest bid received Feb. 17 by Port Comn. for erecting the fish storage building at Spokane and Whatcom Sts. was submitted by H. D. Stewart, American Bank Bldg., at $32,-325. The equipment for this building will cost about $14,000.

Plans will be completed about Mar. 25 by L. R. West, Engr. Port Comn., for a 4-story frame and concrete wharf and warehouse to be erected at the foot of Marion St.

Reported new bids desired until Mar. 24 by Port Comn. for erecting the fish storage building on East Waterway. Cost about $50,000.

Walla Walla, Wash.—Plans completed by Henry Osterman for 2-story reinforced concrete court house estimated to cost $150,000. Bids for constructing will be opened by Co. Comrs., it is reported, about Apr. 10.

A stone annex, costing $25,000, is to be erected at the Walla Walla Hospital. Dr. J. F. Cropp, Owner.

Grants Pass, Ore.—E. J. Coburn, County Clk., writes that the proposed court house will be of fireproof, 3 stories high, 64 x 130 ft., and cost $100,000. E. E. McClaren, Lumber Exchange Bldg., Archt.

Gresham, Ore.—Bids desired by K. A. Miller, Clk. Union Dist. No. 2, until Mar. 10, for erecting 2-story brick high school, 70 x 140 ft., to cost with equipment $25,000. Architect, Ernst Kroner, of Portland.

El Centro, Cal.—We are informed that it is proposed to construct 4 additional buildings at the high school of brick, with plaster over, to cost in all about $80,000. Architect not yet selected. For further information address J. L. House, 726 Brighton Ave.

★**Fresno, Cal.**—Contract for erecting group of buildings for Normal School awarded to Winget Constr. Co., Los Angeles, at $248,641. Plumbing and heating awarded to Arthur Hess, Los Angeles, at $39,746. Thos. Haverty, of Los Angeles, boiler plant, at $10,750.

Contract awarded to Trewhitt & Shields, of Fresno, for erecting Washington School at $103,988 (bids opened Feb. 5). C. C. Star, Supt. Schools.

Huntington Beach, Cal.—Citizens voted in favor of $70,000 bond issue for high school.

★**Oakland, Cal.**—Contract has been awarded to the Clinton Fireproofing Co., of California, for erecting Clawson School, at $141,700 (bids opened Jan. 12). Architect, John J. Donavan, Security Bank Bldg.; A. L. Hannaford, Secy. Bd. Educ.

★**Rio Vista, Cal.**—Contract for erecting 2-story brick and steel school awarded to the Construction & Engineering Co., San Francisco, at about $55,000. H. C. Smith, Humboldt Bank Bldg., San Francisco, Archt.

★**Roseville, Cal.**—Contract for erecting 1-story school awarded to O'Rourke & Brady, San Francisco, at about $50,000. W. H. Weeks, 75 Post St., San Francisco, Archt.

★**San Francisco, Cal.** — Contract awarded by Bd. Pub. Wks. (F. J. Churchill, Secy.) for general construction of academic building at Polytechnic High School, to P. F. Reilly, at $86,906 (bids opened Feb. 10). Next 3 lowest bids: W. D. Henderson, $88,452; Newsom, Wold & Kohn, $88,455; H. C. Matthies, $94,778.

San Rafael, Cal.—Plans being prepared by County Archt. Thos. O'Connor, 104 D St., for a 2-story jail, to cost $60,000.

Winters, Cal.—Trus. of the High School have decided upon a site at north end of First St. on which to erect the 2-story and basement reinforced concrete or brick school. School bonds amounting to $50,000 have been sold.

Yountville, Cal.—Bids reported desired until Mar. 17 by W. F. McClure, State Engr., Sacramento, for an amusement hall and library at Veteran's Home, Yountville.

Toronto, Ont.—Bd. Educ. has approved recommendations made by Budget Com. including $520,000 for new collegiate building.

Point Grey, B. C.—School Bd. in the yearly estimates has included a $60,000 high school.

★**Vancouver, B. C.**—Contract for remodeling main building and installing an operating room in the Vancouver General Hospital reported awarded to Booker, Campbell & Whipple, Williams Bldg., at about $75,000.

★*Items marked thus give the names of parties awarded contracts.*

PRIVATE BUILDINGS.

Items Arranged Geographically

Boston, Mass.—Reported steps being taken by the Woman's Board of Trade of Massachusetts to erect at Park Sq. near Arlington and St. James Sts. a 10-story fireproof terra cotta building. Probable cost $250,000. S. W. St. Clair and R. Clipston Sturgis, 120 Boylston St., Assoc. Archt.

Plans prepared by Chas. K. Cummings, 8 Beacon St., for a 6-story brick office building to be erected on Oliver St. by A. W. Perry.

Cambridge, Mass.—The Harvard Crimson, daily paper of Harvard Univ., reported to be taking steps to erect a publishing building cost $60,000. Payson Dana, of Boston, is a member of the Bldg. Com.

Chelsea, Mass.—Plans being prepared by F. H. Gowing, 18 Tremont St., Boston, for a 4-story brick apartment house to cost $60,000.

★**Newton, Mass.**—Contract awarded to Norcross Bros., Worcester, for erecting church and parish house for Second Congregational Church to be of ashlar granite, limestone trimming, and structural steel; cost $150,000.

Providence, R. I.—Plans being prepared by Jackson & Robertson, Providence, for a church to cost $60,000 for the Lutheran Church, Rev. S. G. Hogglund, Pastor.

Plans being prepared for a theatre which Keith's Circuit intends erecting in this city. A. E. Lovenberg, Local Mgr.

Wallingford, Conn.—Masonic Charity Foundation of Connecticut (Wallace S. Moyle, Pres. New Haven) reported to have authorized plans prepared for a 3-story brick and concrete building at the Masonic Home in this city.

Brooklyn, N. Y.—Plans filed for 4-story brick tenement at Willoughby Ave. and Sumner Ave. for G. & M. Improvement Co., cost $40,000, Shampan & Shampan, Archts., 772 Bway., Brooklyn; alterations to 6-story brick tenement at Bedford Ave. and S. 4th St. for H. & P. Constr. Co., cost $50,000, Shampan & Shampan, Archts., 772 Bway., Brooklyn.

★Contract for erecting 2-story building at Willoughby Ave. and Steuben St. awarded to Peter Guthy, 926 Bway., Brooklyn, cost $40,000. Morris Bldg. Co., 207 Ryerson St., owner.

Brooklyn, N. Y.—See "Electric Railways."

Buffalo, N. Y.—Plans about completed by Max G. Bierl, German-American Bank Bldg., for a 3-story brick, stone and steel club house to be erected at 500 Delaware Ave. for the Knights of Columbus. Cost $75,000. Orson E. Yeager, Chmn. Bldg. Com.

★**New York, N. Y.**—Contract for erecting at Bway. and 24th St. 16-story office and store building, steel constructed, with first four floors of glass, awarded to Thompson Starrett Co., 51 Wall St. Cost $900,000. Owner, Francis S. Kinney Estate.

Reported that the Pan American Assoc. at a recent meeting stated that the matter of erecting the 55-story building at Bway. and 55th St., plans for which were prepared by Francis H. Kimball, 71 Bway., in the year 1913, has again been taken up, and active steps will be taken at once.

Reported bids desired by Maynicke & Franke, Archts., 25 E. 26th St., for erecting a 16-story brick and limestone store and loft building at Bway. and 26th St. for the Estate of Fredk. Ayer, of Boston, Mass. Cost is estimated at $800,000. Pattison Bros., 1182 Bway., are Steam and Electrical Engrs.

★Contract reported awarded to John I. Downey, Inc., 410 W. 34th St., for erecting 2 residences at 4 to 8 E. 80th St. for Frank W. Woolworth. Total cost about $120,000. C. P. H. Gilbert, Archt., 1123 Bway.

Plans being prepared by Louis A. Sheinart, 194 Bowery, for a 5-story limestone and brick fireproof annex to be erected at the Home of the Sons and Daughters of Israel, at 230 E. 10th St., and an additional story to present building; cost $40,000.

Plans filed for following buildings: 10-story brick fireproof storage and office building to be erected at 703 E. 13th St. for Eagle Pencil Co., cost $150,000, Buchman & Fox, Archts., 30 E. 42d St.; 12-story brick and terra cotta fireproof store and office building at Bway. and 47th St. for Geo. B. Burnett, cost $65,000, Jas C. Green, 3 Columbus Circle, Archt.; two 6-story brick tenements at 676 St. Nicholas Ave. for Placid Realty Co., cost $120,000, Abraham Berres, Archt., 1484 St. Mark's Ave.; 2-story brick garage at Southern Boule. and Barretto St. for Columbia Constr. Co., cost $50,000, Edw. J. Bryne, Archt., 148th St. and Willis Ave.; three 5-story brick stores and tenements at Vyse Ave. and 180th St. for Mott Ave Realty Co., cost $195,000, Goldner & Goldberg, Archts., 391 E. 149th St.; 5-story brick stores and tenements at Vyse Ave. and Home St. for Vyse Bldg. Co., cost $117,000, Harry T. Howell, Archt., 3d Ave. and 149th St.

Plans being prepared by Gronenberg & Leuchtag, 303 5th Ave., for a 5-story brick, limestone and granite apartment house to be erected at Haven Ave. and 171st. St. by the Filrose Constr. Co.; cost $100,000.

Rochester, N. Y.—Plans completed by Foote, Headley & Carpenter, Carter Bldg., for a 3 and 2-story store building, brick, terra cotta and steel, to be erected at Clinton Ave. S. and Cortlandt St., by Wm. H. Sours, Gibbs St.

Asbury Park, N. J.—Plans being prepared by Leon Cubberly, Record Bldg., Long Branch, for a stone picture theater to be erected by J. Walter Butcher at 301 1st Ave.; cost $75,000.

Newark, N. J.—Plans being prepared by Edw. V. Warren, 301 Essex Bldg., for alterations and general remodeling of the Family Theatre building at Washington and Marshall Sts.; cost $40,000.

Vineland, N. J.—Plans being prepared by Paul A. Davis, 3d, Philadelphia, Pa., for a 3-story lodge building to be erected by the Jr. Order United American Mechanics, to cost $30,000.

Allentown, Pa.—Plans prepared by A. A. Richter, 31 N. 6th St., Reading, for a 1-story brick and stone church for the St. James Reformed Church; cost $35,000.

Coraopolis, Pa.—Plans prepared by Thos. Hannah, Keenan Bldg., Pittsburgh, for a 2-story brick church for the First Church; cost $60,000.

Erie, Pa.—Reported contract soon to be let for erecting St. Andrews R. C. Church, to cost $100,000.

Eynon, Pa.—St. Mary's R. C. Polish Church intends erecting a $25,000 edifice.

★**New Kensington, Pa.**—Contract awarded Feb. 25 by P. M. Ihrig, 1050 Victoria Ave., Chmn. Bldg. Com., for erecting a church and parsonage for First Evangelical Lutheran Church to West Penn Constr. Co., New Kensington, at $29,657. Next 3 lowest bids: Work Bros., New Kensington, $32,423; Geo. Schenk & Co., Butler, $33,249; O. O. Derschimmer, Butler, $34,095. Thos. G. Easton, Archt., 847 5th Ave.

Pittsburgh, Pa. — Reported tentative plans prepared by F. J. Osterling, 316 4th St., for arcade buildings to be 7 stories high, which Henry C. Frick contemplates erecting on the St. Paul Cathedral property.

Plans being prepared by the Hunting Davis Co., Farmers Bank Bldg., for erecting a 7-story fireproof warehouse at Pike and 17th Sts. for P. H. Butler Co.

Reported bids soon to be asked for erecting a 10-story building at 4th Ave. and Ross St. for B. F. Jones, Jr., of Jones & Laughlin Steel Co., according to plans by MacClure & Spahr, 320 4th Ave.

★Contract awarded to Wm. B. Scaife & Sons Co., Pittsburgh, by Duquesne Reduction Co., Pittsburgh, for structural steel work in connection with the new Cottrell Theater for dust precipitation and by-products.

Scranton, Pa.—Plans of Edw. Landley, Scranton, selected for the building to be erected at Adams Ave. and Spruce St., for the Scranton Life Insurance Co., and to cost $150,000.

Wilkes-Barre, Pa.—Leon Lempert & Son, Cutler Bldg., Rochester, N. Y., is preparing plans for a 3-story, 60 x 200 ft., office and picture theater building for Savoy Amusement Co., care of F. W. Heran, Wilkes-Barre; cost, $75,000.

Bids reported being received for erecting the masonic temple according to plans by Sturdevant & Poggi, Wilkes-Barre.

Wilkinsburg, Pa.—Kiehnel & Elliott, 259 9th St., Pittsburgh, selected to prepare plans for the 1-story stone church to be erected for the United Evangelical Church at Wallace and Pitt Sts.; cost $28,000.

Baltimore, Md.—Plans being prepared by J. E. Laferty, 11 E. Pleasant St., for a 1-story brick, stone and steel church for the St. Luke's Reformed Church; cost $25,000. Rev. A. Conner, Pastor, 1118 Penrose St.

Reported tentative plans being prepared by Parker, Thomas & Rice, of Baltimore, for a 12 or 15-story office building to be erected at Lexington and Liberty Sts.; cost $200,000.

★**Augusta, Ga.** — Contract reported awarded to Evans Bros. Constr. Co., Birmingham, Ala., for erecting a 3-story reinforced concrete and steel building for Armour & Co. at 9th and Walker Sts.

Macon, Ga. — Macon Terminal Co., formed with W. A. Winburn, of the Central of Georgia R.R. as Pres., to erect the union passenger station here.

★**Clemson College, S. C.**—Contract for erecting the Y. M. C. A. building at Clemson College awarded to Thos. P. Cothran, of Greenwood. The building, including furnishings, is to cost about $75,000.

★**Frankfort, Ky.**—Contract for erecting bank building for State Natl. Bank, awarded to Bankers Bldg. Bureau, 106 E. 19th St., New York, N. Y.

★**Louisville, Ky.**—Contract awarded by Joseph & Joseph, Louisville, for erecting a 4-story fireproof building for B. Bernheim at 4th and Chestnut Sts. to A. Marcum; cost $100,000.

Bellefontaine, O.—Plans being prepared for the Christian Church; cost $30,000.

Cleveland, O.—Plans prepared by S. H. Weis, Schofield Bldg., for a 7-story fireproof brick, concrete and terra cotta family hotel to be erected in University Circle, by a company in which J. S. Kohn, Attorney, Engineer's Bldg., is interested; cost $1,000,000.

Harry K. Shlosser, of Erie, Pa., reported taking steps to erect at Lakeside Ave. N. E. and E. 3d St. an 8-story reinforced concrete fireproof store, office and light manufacturing building to cost approximately $100.000. Richd. Irvin, Pittsburgh, Pa., Archt.

Findlay, O. — The Elks have raised $100,000 with which to erect a lodge building.

Hamilton, O.—Receivers of Cincinnati, Hamilton & Dayton R. R. have authorized J. M. Davis, Gen. Mgr., Cincinnati, to erect a brick round house here costing $30,000.

Mt. Vernon, O.—Vine St. Church of Christ intends erecting a $50,000 church.

★**Piqua, O.**—General contract for remodeling the Piqua Natl. Bank awarded to T. A. Graham, Springfield; cost about $50,000.

★**Toledo, O.**—Contract reported awarded to A. Bentley & Sons Co., Toledo, for erecting the building for the Northern Natl. Bank; cost $200,000.

Warren, O.—Swedish Lutheran Church will erect a $30,000 edifice to replace the building destroyed by fire.

★**Wellsville, O.**—Contract for erecting the First Methodist Church awarded to J. B. and Wm. Keys, Shreve Bldg., to be of Bedford stone and cost about $70,000.

South Bend, Ind.—Bids reported desired until Mar. 13 by Perkins, Fellows & Hamilton, Archts., 6 N. Clark St., Chicago, for erecting an office building, 167 x 87 ft., 6 stories and basement, for Farmers' Security Co., South Bend.

Detroit, Mich.—Bids reported desired until Mar. 8 by Smith, Hinchman & Grylls, Archts., Washington Arcade, for erecting a 1-story and basement, 172 x 220 ft., Central Market building. Probable cost $50,000.

Bids reported desired until Mar. 15 by Harry J. Rill, Archt., Buhl Blk., for erecting 1-story and basement, 106 x 222 ft., church for St. Hedwig's Congregation, Junction near Norton Aves.

Detroit, Mich.—The Masons voted to erect an addition to the temple at First St. and Lafayette Boule.

Kenosha, Wis.—Bids reported desired until Mar. 8 by Bldg. Com., Kenosha Aerie No. 1055, F. O. E. (Leo H. Flasch, Chmn.), at office of Jos. Lindl, Archt., Kenosha, for erecting a club house.

Milwaukee, Wis. — Northwestern R.R. (W. H. Finley, Ch. Engr., Chicago, Ill.) reported to be contemplating improvements to the depot here at a cost of $600,000.

Boone, Ia.—First Natl. Bank intends erecting a 6 or 8-story building costing $140,000, to replace the building destroyed by fire.

Eagle Grove, Ia.—Northwestern R. R. (W. H. Finley, Ch. Engr., Chicago, Ill.) reported to have authorized erection of an addition to round house here costing $100,000.

St. Paul, Minn.—The Men's Club of the Church of the Messiah intends erecting a club house costing $25,000.

The Hibernians propose erecting a lodge building costing $50,000.

Williston, N. D.—Plans of R. T. Frost, Minot selected for the hotel to be erected here at a cost of $100,000.

Billings, Mont.—Stone - Ordean - Wells Co., wholesale grocers, reported to be taking steps to erect a 2-story brick, 150 x 75 ft., store and office building at N. 27th St. and Montana Ave.; cost $50,000. R. H. Horr, Gen. Mgr.

Butte, Mont.—Plans being prepared by Wilson & Cutting, Butte, for a banking building for W. H. Clarke & Bro.; cost $100,000.

Butte, Mont.—Plans being prepared, according to reports, by Wilson & Cutting, Butte, for a bank building costing $60,000 to be erected for W. H. Clarke & Bros.

Kansas City, Mo.—Ridenour Baker Grocery Co. intends erecting on site of present building at St. Louis Ave. and Mulberry St. an 8 or 9-story reinforced concrete building costing $225,000.

★**St. Louis, Mo.** — Contract reported awarded to Boothe & Welsh for erecting the $30,000 building at 15th St. and Cass Ave. for Cass Ave. Bank. Kennerly & Stiegemeyer, St. Louis, and Wm. Wedemeyer, 105 N. 7th St., Assoc. Archts.

Heber Springs, Ark. — The Heber Springs Co. (A. A. Hodges, Pres) has been incorporated with a capital of $50,000, and will erect a 3-story hotel to take the place of the Adrian.

Austin, Tex.—John Eberson, Chicago, is architect for 1-story brick and terra cotta Majestic Theatre to be erected on Congress Ave. by company in which Ernest Nalle and Geo. A. Endress, of Austin, are interested.

★**Greenville, Tex.**—Contract awarded to J. F. Denning, Mexia, for erecting a 3-story reinforced concrete, steel and brick hotel for Maj. W. L. Beckman.

★**Houston, Tex.**—Contract for erecting a 2-story brick building at Franklin and Washington Sts. for Hugh Hamilton awarded to American Constr. Co.; cost about $60,000.

Olympia, Wash.—Preliminary plans reported being prepared for a fireproof bank building to be erected at 5th and Main Sts. by the Olympia Natl. Bank (Frank M. Kenny, Cashier). Cost $50,000.

★**Portland, Ore.**—Contract awarded by Macnaughton & Raymond, Archts., Title & Trust Bldg., to Johnson Almeter, Railway Exchange Bldg., for erecting the Blake McFalls building; it is reported that it will be of brick and mill construction, and cost about $90,000.

Oakland, Cal.—Plans being prepared by Carl Werner, Phelan Bldg., San Francisco, for a 14-story office and theater building to be erected at 14th and Franklin Sts.; cost $700,000.

Sacramento, Cal.—Plans being prepared by Carl Werner, Phelan Bldg., San Francisco, for a $125,000 building for the Scottish Rite Cathedral Assoc. at 28th and L Sts.

NEW INDUSTRIAL PLANTS.

See also "Private Buildings."

Items Arranged Geographically

Fitchburg, Mass.—Fitchburg Baking Co. intends erecting a 2-story bakery, brick, 80x100 ft.

Taunton, Mass.—Weir Stove Co. is planning erecting an addition to their plant in Weir Village.

Pawtucket, R. I.—Jeuckes Spinning Co. will erect a 3-story factory on Barton St., 100 x 200 ft.

★**New Haven, Conn.**—Contract for erecting 4-story factory, 93 x 342 ft., with a 1-story ell 33 x 36 ft., for National Folding Box Co., awarded to Sperry Eng. Co.; cost, about $150,000.

Brooklyn, N. Y.—Wm. Becker's Aniline & Chemical Wks., 105 Underhill Ave., reported to have secured a site bounded by E. 53d to E. 55th Sts., Ditmas Ave. and the N. Y. Connecting R. R. in the Paerdegat Basin section, on which to erect a chemical plant which is to consist of 23 buildings.

Mercer, Pa.—Plans being prepared for 4-story 60 x 260-ft. addition to plant of Reznor Mfg. Co., Hawthorne St.; cost, $175,000.

Philadelphia, Pa.—Reported bids desired Mar. 9 by Ballinger & Perrot, Archts., 1211 Arch St., for erecting a 1-story brick 50 x 275 ft. factory at Tacony and Lewis Sts., Frankford, for Wm .and Harvey Rowland, Inc.

Baltimore, Md.—Reported Singer-Pentz Co. lowest bidders for erecting the 5-story 60.7 x 162-ft. brick factory for Atlantic Can Co.; cost, $75,000. W. O. Sparklin, Archt.

Cleveland, O.—Preliminary plans being prepared by Ernest McGeorge, Leader-News Bldg., for a brick fireproof building with cement floors which the Elyria Iron & Steel Co. will erect at E. 131st St. and St. Clair Ave. at a cost of $75,000. Myron A. Wick, Treas.

Springfield, O.—Plans being prepared by R. C. Gotwald, Gotwald Bldg., for concrete addition to the plant of the Elwood Myers Co.; cost, $30,000.

Van Wert, O.—H. H. Ludwig and Geo. Mohr reported interested in the building of a grain elevator here.

★**Detroit, Mich.**—Contracts for erecting brick and steel additions to plants 3 and 4 at West Jefferson and Clark Aves. to house the steel stamping and enameling departments of the factory of Studebaker Corp. awarded as follows. Mason and concrete work to Jackson & Maurice, 1708 Ford Bldg.; steel, Toledo Bridge & Crane Co.; steel sash, Detroit Steel Products Co., Boulevard and Griffin St.; fire doors, Flood & Hall; carpenter work, Harcus & Co., 774 Russell St.; tile roofing, Federal Cement Tile Co., Penobscot Bldg., cost $85,000.

St. Paul, Minn.—Farmers' Elevator Assoc. of Minnesota, North and South Dakota and Montana reported to be taking steps to erect in this city a terminal elevator costing $200,000. Geo. S. Loftus, 2401 Grand Ave., St. Paul, may be able to give further information.

★**Seattle, Wash.**—Contract for erecting first unit of the mill and paper board factory for R. W. Pridman Co. awarded to H. D. Stewart, American Bank Bldg. This building is to be 2-story, 130 x 215 ft., mill construction, and cost $55,000. Entire plant is to cost $140,000.

Portland, Ore.—See "Hydraulic Construction and River Improvements."

★*Items marked thus give the names of parties awarded contracts.*

MISCELLANEOUS.

See also "Hydraulic Construction and River Improvements."

Items Arranged Geographically

★**Cement — Worcester, Mass.**—Contract has been awarded for 20,000 bbls. cement for use by Water, Sewer and Street Departments this year, to the B. W. Marsh Co., Garden St., Worcester, at $1.49 per bbl. of 4 bags, with 9 cts. off for each bag returned. A. T. Rhodes, Street Comr.

Balustrade—New York, N. Y.—Bids desired until Mar. 11 by Park Bd. (Cabot Ward, Pres.) for furnishing material and constructing an artificial granite balustrade on top of the present granite coping on the newly reconstructed speedway bulkhead wall. Security, $5,000.

Street Signs—Harrisburg, Pa.—Bids desired until Mar. 10 by W. H. Lynch, Supt. Street and Pub. Improvements, for furnishing and delivering f.o.b. cars, Harrisburg, 1,400 street signs, shch as are fastened to buildings.

Coal Handling Apparatus in Mint—Philadelphia, Pa.—Bids desired until Mar. 29 by O. Wenderoth, Superv. Archt., Washington, D. C., for coal handling apparatus, etc., in U. S. Mint, at Philadelphia, advertised in Engineering Record.

Civil, Sundry and Judicial Bill—Washington, D. C.—The U. S. Senate has passed the Sundry civil appropriation bill carrying approximately $127,000,000 and the legislative, executive and judicial appropriation bill, carrying $37,500,000.

Electric Traveling Crane—Washington, D. C.—Bids desired until Mar. 27 by H. R. Stanford, Ch. Bureau of Yards & Docks, Navy Dept., Washington, D. C., for a 15 ton 4 motor electric traveling crane delivered and erected at the Navy Yard, Washington, D. C. Specification No. 2139.

Track Material—Jacksonville, Fla.—Bids desired until Mar. 10 by the Port Commissioners (F. W. Bruce, Engr.) for furnishing track material as follows: 660 gross tons 70-lb. rail, 40 tons 4-bolt angle splice bars, 3 tons bolts and nuts, 18 tons spikes, 45 turn-outs, including switches, frogs and switch stands. Bids desired on both open hearth or Bessemer steel.

Gas Mains—Miami, Fla.—The Miami Gas Co. reported to have decided to spend this year about $200,000 for new mains and improvements to plant.

Telephone Franchise—Ludlow, Ky.—Bids desired until Mar. 18 by W. B. Cullen, City Clerk, for a telephone franchise, advertised in Engineering Record.

Recreation Center, Etc.—Columbus, O.—Council has appropriated $40,000 for erection of a recreation center and shelter house in Schiller Park. Melvin Frank, Archt., is reported to have prepared plans for the shelter house.

★**Steam Boiler—Middletown, O.**—Contract awarded Feb. 11 by City Comrs. (John Kunz, Clk.) for removing 2 return tubular boilers and installing one 150 hp water-tube boiler with smoke connections, steam piping and other miscellaneous work, to Babcock & Wilcox Co., Cincinnati, at $4,596. Pollard & Ellms, Consulting Engrs., 2806 Union Central Bldg., Cincinnati.

Elevator—Detroit, Mich.—Bids desired until Mar. 30 by O. Wenderoth, Superv. Archt., Washington, D. C., for installation, complete, of an electric freight elevator, mezzanine floor, etc., in extension of U. S. Post Office and Courthouse, Detroit.

Cement—Delavan, Wis.—Bids reported desired until Mar. 12 by H. J. Peters, Highway Comr., Elkhorn, for furnishing approximately 7100 bbls. Portland cement, f. o. b. Delavan.

Freight Lift—St. Louis, Mo.—Bids desired until Mar. 30 by O. Wenderoth, Superv. Archt., Washington, D. C., for installing a hydraulic freight lift in U. S. Post Office at St. Louis.

Park Work — Seattle, Wash. — W. J. Thompson, Supt., and H. Gillis, Engr. of the Seattle Park Dept., Central Bldg., Seattle, are reported to have completed plans for changing the Central Park at a cost of about $50,000. Work includes construction of a reinforced concrete station, drinking fountains, concrete retaining walls, sidewalks, etc.

Tunnel—Salt Lake City, Utah.—L. A. Martin, of the brokerage firm of Martin & Co., Salt Lake City, is reported to be a promoter of a company about to be formed here to construct a drain, transportation and irrigation tunnel to drain also facilitate ore handling in the south end of Tintic. The portal of tunnel will be on Goshen side of mountains, at an elevation of 5000 ft., and in driving 4 to 5 miles, it will reach vertical depths of 1400 ft. to more than 3000 ft. It will be more than 2000 ft. under Iron Blossom, Colorado, Sioux Con. and Uncle Sam's mines.

Swimming Tank—Vancouver, B. C.—Plans reported completed by Emil Guenther, Northwest Trust Bldg., for constructing a 2-story reinforced concrete salt water swimming tank, to cost about $75,000.

Steel Angles, Etc.—Panama.—Bids desired until Mar. 10 by Maj. F. C. Boggs, Corps Engrs., U. S. A., Genl. Purchasing Officer, Panama Canal, Washington, D. C., for Cir. 903—Steel angles, pipe fittings, sheet brass, brass tubing, sheet bar, bar copper, bronze bars, etc.

Snubbing Posts, Etc.—Panama.—Bids desired until Mar. 22 by Maj. F. C. Boggs, Corps Engrs., U. S. A., General Purchasing Officer, Panama Canal, Washington, D. C., for Cir. 904—c.-i. snubbing posts, sheet copper, yellow metal, copper tubing, etc.

Elevator—Pearl City, T. H.—Bids desired until Apr. 3 at the Bureau Yards and Docks, Navy Dept., Washington, D. C. (H. R. Stanford, Ch.), for Spec. 2142—an electric passenger elevator in the Naval Hospital, Naval Station, Pearl Harbor.

Proposals

For Proposals Advertised see Pages 48 and 49.

WATERWORKS.

Bids Close.		See Eng. Record.
Mar. 9.	Mains, Euclid, O.	Feb. 13
Mar. 9.	Meters, Los Angeles, Cal.	Feb. 13
Mar. 9.	Tanks, Philippine Islands. Adv. Feb. 20 to Mar. 6.	Feb. 20
Mar. 9.	Pipe, Etc., Chillicothe, Mo.	Feb. 27
Mar. 9.	Water Works Material, Woodruff, S. C.	Mar. 6
Mar. 9.	Mains, Wilmington, Del.	Mar. 6
Mar. 10.	Water Supply Improv., Salem, Mass. Adv. Feb. 20, 27.	Feb. 20
Mar. 10.	System, Burrton, Kan.	Mar. 6
Mar. 10.	Laying Mains, Milwaukee, Wis.	Mar. 6
Mar. 11.	Pump, Atlantic City, N. J. Adv. Feb. 27.	Feb. 27
Mar. 11.	Main, New York, N. Y.	Mar. 6
Mar. 11.	Pipe, Jamestown, N. Y.	Mar. 6
Mar. 11.	Pipe, etc., Oshkosh, Wis.	Mar. 6
Mar. 12.	Pipe, Etc., Royal Oak, B. C.	Feb. 6
Mar. 12.	Pumping Engine, Chicago, Ill. Adv. Feb. 27 to Mar. 6.	Feb. 27
Mar. 12.	C. i. pipe, etc., Cleveland, Ohio	Mar. 6
Mar. 13.	Well, Wauwatosa, Wis.	Mar. 6
Mar. 15.	Pumps, Spokane, Wash.	Feb. 13
Mar. 15.	Water Wks., Dardanelle, Ark.	Mar. 6
Mar. 15.	Filters, etc., Port Hope, Ont.	Mar. 6
Mar. 15.	Boilers for Pump Sta., Toronto, Ont. Adv. Mar. 6.	Mar. 6
Mar. 15.	Gate Valves, Milwaukee, Wis.	Mar. 6
Mar. 16.	Pumping Equipment, Lyons, Neb.	Feb. 27
Mar. 16.	Pipe, Berwyn, Ill.	Mar. 6
Mar. 16.	System, Yale, Ia.	Mar. 6
Mar. 17.	Water Wks., Billings, Mont.	Mar. 6
Mar. 17.	Filtration Plant, Contr. No. 6, Cleveland, O. Adv. Mar. 6.	Mar. 6
Mar. 18.	Pumping Station, Toledo, O. Adv. Feb. 20.	Feb. 20
Mar. 20.	Wells and Reservoir, McCune, Kan.	Mar. 6
Mar. 22.	Well, Caruthersville, Mo. Adv. Mar. 6.	Mar. 6
Mar. 23.	Contract 123, New York, N. Y. Adv. Feb. 27 to Mar. 6.	Feb. 27
Mar. 24.	Pumping Engine, Perth Amboy, N. J. Adv. Feb. 20.	Feb. 26
Apr. 13.	Valves, Toronto, Ont. Adv. Feb. 20 to Mar. 6.	Feb. 20

SEWERAGE AND SEWAGE DISPOSAL.

Bids Close.		See Eng. Record.
Mar. 8.	Parkesburg, Pa. Adv. Feb. 20.	Feb. 20
Mar. 9.	Granville, O.	Feb. 20
Mar. 9.	Onawa, Ia.	Mar. 6
Mar. 9.	Woodruff, S. C.	Mar. 6
Mar. 10.	Baltimore, Md. Adv. Feb. 20, 27.	Feb. 20
Mar. 10.	Mason City, Ia.	Feb. 27
Mar. 10.	Osborne, Kan.	Mar. 6
Mar. 10.	Baltimore, Md.	Mar. 6
Mar. 15.	Kent, O.	Mar. 6
Mar. 16.	Corning, N. Y. Adv. Mar. 6.	Mar. 6
Mar. 16.	Berwyn, Ill.	Mar. 6
Mar. 16.	Columbus, O.	Mar. 6
Mar. 17.	Butte, Mont.	Feb. 20
Mar. 17.	Brooklyn, N. Y.	Feb. 27
Mar. 18.	Cleveland, O.	Mar. 6
Mar. 18.	Burlington, Ia.	Mar. 6
Mar. 18.	Leon, Ia.	Mar. 6
Mar. 18.	Brighton, N. Y.	Mar. 6
Mar. 19.	Sandusky, O.	Mar. 6
Mar. 22.	Enterprise, Ore.	Feb. 20
Mar. 23.	Kinston, N. C. Adv. Feb. 27 to Mar. 6.	Feb. 27
Mar. 29.	Phoenix, Ariz.	Mar. 6
Mar. 29.	Huntington Beach, Cal.	Mar. 6
Apr. 19.	New Orleans, La.	Mar. 6

BRIDGES.

Bids Close.		See Eng. Record.
Mar. 9.	Illinois	Jan. 30
Mar. 9.	Owatonna, Minn.	Feb. 27
Mar. 9.	Somerville, N. J.	Mar. 6
Mar. 10.	Dubuque, Ia.	Mar. 6
Mar. 12.	Calgary, Alta.	Feb. 27
Mar. 15.	Cumberland, R. I. Adv. Feb. 13.	Feb. 13
Mar. 15.	Everett, Wash.	Feb. 27
Mar. 15.	Broughton, Ill.	Feb. 27
Mar. 15.	Lima, O.	Feb. 27
Mar. 15.	Winfield, Kan.	Mar. 6
Mar. 15.	Jasper, Ala.	Mar. 6
Mar. 15.	Garfield, Kan.	Mar. 6
Mar. 15.	Knoxville, Ia.	Mar. 6
Mar. 16.	Illinois	Jan. 30
Mar. 17.	North Platte, Neb.	Feb. 20
Mar. 17.	Harrisburg, Pa.	Mar. 6
Mar. 18.	Kingston, Ont.	Mar. 6
Mar. 18.	Lynden, Wash.	Mar. 6
Mar. 18.	Bellingham, Wash.	Mar. 6
Mar. 19.	Cincinnati, O.	Mar. 6
Mar. 20.	Billings, Mont.	Mar. 6
Mar. 22.	Everett, Wash.	Feb. 27
Mar. 23.	Red Cloud, Neb.	Mar. 6
Mar. 31.	Frederickton, N. B.	Mar. 6
Apr. 7.	New Hampton, Ia.	Mar. 6

PAVING AND ROADS.

Bids Close.		See Eng. Record.
Mar. 8.	Kalamazoo, Mich. Adv. Mar. 6.	Mar. 6
Mar. 9.	Watertown, Wis.	Feb. 27
Mar. 9.	Clinton, Ia.	Feb. 27
Mar. 9.	Louisville, Ky.	Mar. 6
Mar. 9.	Superior, Wis.	Mar. 6
Mar. 10.	Angola, Ind. Adv. Feb. 20 to 27.	Feb. 20
Mar. 10.	Cleveland, O.	Feb. 20
Mar. 10.	Missoula, Mont.	Feb. 27
Mar. 10.	Road Roller, Sharon, Pa.	Mar. 6
Mar. 10.	Mansfield, O.	Mar. 6
Mar. 10.	Brooklyn, N. Y.	Mar. 6
Mar. 10.	Illinois	Mar. 6
Mar. 10.	Philadelphia, Pa.	Mar. 6
Mar. 10.	Delaware, O.	Mar. 6
Mar. 10.	Riverside, Cal.	Mar. 6
Mar. 11.	Jersey City, N. J.	Mar. 6
Mar. 11.	Woonsocket, R. I. Adv. Feb. 27.	Feb. 27
Mar. 11.	New York, N. Y.	Mar. 6
Mar. 11.	Long Island City, N. Y.	Mar. 6
Mar. 11.	Brooklyn, N. Y.	Mar. 6
Mar. 11.	Lorain, O	Mar. 6
Mar. 11.	Ft. Wayne, Ind.	Mar. 6
Mar. 12.	Ohio	Mar. 6
Mar. 12.	Wilkesbarre, Pa.	Feb. 13
Mar. 12.	Davenport, Wash.	Feb. 20
Mar. 12.	Ohio	Feb. 27
Mar. 12.	Indiana	Feb. 27
Mar. 12.	Duluth, Minn.	Mar. 6
Mar. 12.	Indiana.	Mar. 6
Mar. 15.	Mt. Gilead, O.	Feb. 20
Mar. 15.	Mansfield, O.	Feb. 20
Mar. 15.	Steelton, Pa. Adv. Feb. 27.	Feb. 27
Mar. 15.	Oneonta, N. Y.	Feb. 27
Mar. 15.	Redwood, Cal.	Feb. 27
Mar. 15.	Everett, Wash.	Feb. 27
Mar. 15.	Silver City, N. M.	Mar. 6
Mar. 15.	Rockford, Ill. Adv. Mar. 6.	Mar. 6
Mar. 15.	Findlay, O.	Mar. 6
Mar. 15.	Bloomfield, N. J.	Mar. 6
Mar. 15.	Vincennes, Ind.	Mar. 6
Mar. 15.	New Haven, Conn.	Mar. 6
Mar. 15.	Battle Creek, Mich.	Mar. 6
Mar. 15.	Camden, N. J.	Mar. 6
Mar. 16.	Philadelphia, Pa. Adv. Feb. 27 to Mar. 6.	Feb. 27
Mar. 16.	Oiling Roads, Maryland. Adv. Mar. 6.	Mar. 6
Mar. 16.	Maryland	Mar. 6
Mar. 16.	Uniontown, Pa.	Mar. 6
Mar. 16.	Marshall, N. C.	Mar. 6
Mar. 16.	Corning, N. Y. Adv. Mar. 6.	Mar. 6
Mar. 19.	Richland Center, Wis.	Mar. 6
Mar. 19.	Indiana.	Mar. 6
Mar. 19.	Cedar Rapids, Ia.	Mar. 6
Mar. 20.	Indianapolis, Ind.	Mar. 6
Mar. 20.	Covington, La.	Mar. 6
Mar. 22.	New Brunswick, N. J.	Feb. 20
Mar. 23.	Winona, Minn.	Feb. 27
Mar. 23.	Kinston, N. C. Adv. Feb. 27 to Mar. 6.	Feb. 27
Mar. 23.	Albany, N. Y. Adv. Mar. 6.	Mar. 6
Mar. 23.	Meriden, Conn. Adv. Mar. 6.	Mar. 6
Mar. 24.	Columbus, Miss	Mar. 6
Mar. 25.	Somerville, N. J.	Mar. 6
Mar. 25.	Oroville, Cal.	Mar. 6
Mar. 26.	Richland Center, Wis.	Mar. 6
Mar. 29.	Lansing, Mich.	Mar. 6
Mar. 30.	Toledo, O.	Mar. 6
Apr. 6.	Spokane, Wash.	Mar. 6

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Bids Close.		See Eng. Record.
Mar. 9.	Dredging, Wilmington, N. C. Adv. Feb. 13 to Mar. 6.	Feb. 13
Mar. 9.	Ditches, Etc., Edna, Tex.	Feb. 27
Mar. 10.	Canal Excav., Grand Junction, Colo. Adv. Feb. 6.	Feb. 6
Mar. 10.	River Bank Protection, St. Louis, Mo.	Feb. 20
Mar. 10.	Reclamation Work, Payson City, Utah.	Feb. 20
Mar. 11.	Excavator, Atlantic City, N. J. Adv. Feb. 27.	Feb. 27
Mar. 13.	Ditch Work, Owatonna, Minn.	Feb. 27
Mar. 15.	Pump. Plant for Lock, Seattle, Wash. Adv. Feb. 6 to 20 and Mar. 6.	Feb. 6
Mar. 15.	Dike, Newark, N. J.	Feb. 27
Mar. 15.	Ditch, Olivia, Minn.	Mar. 6
Mar. 16.	Jetty and Dike Wk., Galveston, Tex. Adv. Feb. 20 to Mar. 6.	Feb. 20
Mar. 18.	Dredging, Hartford, Conn.	Feb. 27
Mar. 19.	Dredging, Charleston, S. C. Adv. Feb. 20 to Mar. 6.	Feb. 20
Mar. 24.	Ditch, Slayton, Minn.	Mar. 6
Mar. 26.	Dredge, Duluth, Minn. Adv. Feb. 27 to Mar. 6.	Feb. 27
Mar. 29.	Dredging, Indian Harbor, Ind. Adv. Mar. 6.	Mar. 6
Mar. 30	Dredging, Providence, R. I. Adv. Mar. 6.	Mar. 6

PUBLIC BUILDINGS AND SCHOOLS.

Bids Close.		See Eng. Record.
Mar. 8.	Ft. H. G. Wright, N. Y. Adv. Feb. 13 to 27.	Feb. 13
Mar. 9.	Ellington, Conn.	Mar. 6
Mar. 10.	Millersburg, Ia.	Feb. 27
Mar. 10.	Bigelow, Mo.	Mar. 6
Mar. 10.	Gresham, Ore.	Mar. 6
Mar. 11.	Pittsburgh, Pa. Adv. Feb. 6, 13.	Feb. 6
Mar. 11.	Independence, Wis.	Mar. 6
Mar. 15.	Fairmont, W. Va.	Feb. 6
Mar. 15.	Utica, N. Y.	Feb. 13
Mar. 15.	Greenfield, Mass.	Feb. 13
Mar. 15.	East St. Louis, Ill.	Feb. 13
Mar. 15.	Lincolnton, Ga.	Feb. 27
Mar. 15.	Greenville, Miss.	Feb. 27
Mar. 15.	St. Catharines, Ont.	Feb. 27
Mar. 15.	West Reading, Pa.	Mar. 6
Mar. 15.	Harvard, Neb.	Mar. 6
Mar. 15.	McCutchenville, O.	Mar. 6
Mar. 15.	Green Bay, Wis.	Mar. 6
Mar. 15.	Pierson, Ia.	Mar. 6
Mar. 15.	Long Island City, N. Y.	Mar. 6
Mar. 15.	Evansville, Ind.	Mar. 6
Mar. 15.	Cleveland, O.	Mar. 6
Mar. 16.	Dayton, O.	Feb. 27
Mar. 16.	Delaware, O.	Feb. 27
Mar. 17.	West Austintown, O.	Feb. 27
Mar. 17.	Sargent, Neb.	Mar. 6
Mar. 17.	Canton, O.	Mar. 6
Mar. 17.	Yountville, Cal.	Mar. 6
Mar. 18.	Rocky Ridge, O.	Feb. 27
Mar. 18.	York, Neb.	Mar. 6
Mar. 19.	Corpus Christi, Tex.	Mar. 6
Mar. 20.	Akron, O.	Mar. 6
Mar. 20.	Falls City, Wash.	Mar. 6
Mar. 20.	New Haven, Conn.	Mar. 6
Mar. 22.	Brattleboro, Vt.	Feb. 6
Mar. 22.	Greeley, Colo. Adv. Feb. 20.	Feb. 20
Mar. 22.	Everett, Wash.	Feb. 20
Mar. 22.	Rome, Ga.	Mar. 6
Mar. 22.	Cleveland, O.	Mar. 6
Mar. 23.	Willoughby, O.	Feb. 27
Mar. 23.	Des Moines, Ia.	Feb. 20
Mar. 23.	Watervliet, N. Y. Adv. Mar. 6.	Mar. 6
Mar. 23.	Detroit, Mich.	Mar. 6
Mar. 24.	Seattle, Wash.	Mar. 6
Mar. 25.	Pendleton, Ore.	Feb. 6
Mar. 25.	Mason City, Ia.	Mar. 6
Mar. 25.	New York, N. Y.	Mar. 6
Mar. 29.	Smyrna, Del.	Feb. 20
Mar. 29.	Dayton, O.	Mar. 6
Mar. 30.	Detroit, Mich.	Mar. 6
Apr. 2.	Plainfield, N. J. Adv. Feb. 27 to Mar. 6.	Feb. 27
Apr. 6.	Live Oak, Fla.	Feb. 27

PRIVATE BUILDINGS.

Bids Close.		See Eng. Record.
Mar. 10.	Lynn, Mass.	Feb. 20
Mar. 15.	South Bend, Ind.	Mar. 6
Mar. 15.	Detroit, Mich.	Mar. 6
Mar. 25.	Wilmington, Del.	Jan. 9

MISCELLANEOUS.

Bids Close.		See Eng. Record.
Mar. 10.	Engines and Compressor, Ketchikan, Alaska	Feb. 6
Mar. 10.	Steel Angles, Etc., Panama	Mar. 6
Mar. 10.	Track Material, Jacksonville, Fla.	Mar. 6
Mar. 10.	Street Signs, Harrisburg, Pa.	Mar. 6
Mar. 11.	Elevators, Etc., Pittsburgh, Pa.	Feb. 6
Mar. 11.	Broken Stone, Philadelphia, Pa. Adv. Feb. 20, 27.	Feb. 20
Mar. 11.	Balustrade, New York, N. Y.	Mar. 6
Mar. 12.	Cement, Delavan, Wis.	Mar. 6
Mar. 13.	Foundation for Radio Tower, Washington, D. C.	Jan. 30
Mar. 16.	Coal Handling Apparatus, Boston, Mass.	Feb. 27
Mar. 16.	Street Car Line Materials, Toronto, Ont. Adv. Mar. 6.	Mar. 6
Mar. 18.	Telephone Franchise, Ludlow, Ky. Adv. Mar. 6.	Mar. 6
Mar. 22.	Snubbing Posts, Etc., Panama	Mar. 6
Mar. 27.	Electric Traveling Crane, Washington, D. C.	Mar. 6
Mar. 29.	Coal Handling Apparatus in Mint, Philadelphia, Pa. Adv. Mar. 6.	Mar. 6
Mar. 30.	Freight Life, St. Louis, Mo.	Mar. 6
Mar. 30.	Elevator, Detroit, Mich.	Mar. 6
Apr. 1.	Garbage Disposal, Wilmington, Del. Adv. Feb. 27 and Mar. 6.	Feb. 27
Apr. 3.	Elevator, Pearl City, T. H.	Mar. 6
Apr. 3.	Garbage Plant, Rock Island, Ill.	Mar. 6

★*Items marked thus give the names of parties awarded contracts.*

New Construction Activities

The contract for the Interstate bridge at Portland, Ore., which was let last week in seven sections at a total of $1,305,064, will require nearly 9000 tons of steel. Building and miscellaneous contracts calling for structural steel seems to have increased slightly in volume, while several railroads, including the Pennsylvania, placed orders for considerable bridge steel last week. Some buying of rails and cars was recorded last week, while the export business in steel products other than ordnance and ammunition continues very satisfactory. Shipments of export steel are still held up by the congestion of ocean traffic. The sale of New York State's $27,000,000 bond issue, bearing 4¼ per cent interest, on March 10, was watched with interest. A price of 103 was predicted, while the issue of 4½ per cent bonds sold last year brought 106.07. Public bonds all over the country are being sold at a good rate, and appropriations being made, and bond issues being voted, indicate a fair volume of public construction work for the year.

Buildings

At Philadelphia bids were opened and several contracts awarded on school buildings to cost more than $500,000. Contracts awarded for the St. Louis Athletic Club building total more than $450,000. A ten-story bank building in Evansville, Ind., has been contracted for at $265,000. The contract for a $150,000 warehouse has been awarded at Lestershire, N. Y. Several other good size building contracts are noted. Bids are desired on a $400,000 building at Pittsburgh, and it is reported that the Knights of Columbus are ready for bids on a $100,000 building at Buffalo. Plans have been accepted for a $185,000 high school at South Bethlehem, Pa. At New York plans have been filed for a $200,000 store and factory building, and for three apartment houses which will cost $225,000. School bonds amounting to $400,000 have been sold at Dallas, Texas, and Nashville, Tenn., has voted to issue school bonds totaling $625,000. It is reported that plans are being prepared for a $600,000 building at Springfield, Mass. The State Legislatures of Connecticut, Washington and South Dakota, and the Legislature of British Columbia, have passed appropriations or authorized bond issues which will cover important construction work. A greater value of projected private buildings is reported this week than last. Chicago building permits last week totaled 232, with an estimated cost of $1,500,000, as compared with 140 permits issued in the corresponding week of 1914.

Bridges and Roads

Aside from the Portland bridge, a $96,000 contract was awarded at Winona, Minn., last week. Bids were opened at Mount Holly, N. J., on $74,000 worth of bridge repair work. Bids are desired on a number of small bridge projects. Seattle has voted to issue $1,374,500 bonds for constructing three concrete bridges. It is reported that a $500,000 bridge is contemplated at Youngstown, Ohio. Appropriations by the State Legislature and different counties of Washington indicate that $10,000,000 will be available in that State for highway construction during the next two years. Bids for considerable paving work have been opened at Buffalo, Cleveland, Davenport, Wash., and Canton, Ohio. At the latter place one contract for $48,000 was awarded. Pittsburgh awarded a $354,000 paving contract. Contracts were also awarded at Tama, Iowa, and San Francisco. The lowest bid opened March 3 at Baltimore for paving work was $94,000. The city council of St. Paul has ordered paving which will cost $233,000. A considerable increase in the number of projects on which bids are desired is noted this week. The road work at Tavares, Fla., has been readvertised. Among other large contracts to be let are the following: 40 miles of roads at Jacksonville, Fla.; 41 cars of granite and other road materials at St. Paul; 10 miles of road to cost $155,000 at Seattle, and 70 miles of dirt roads near Lawrenceville, Va.

Waterworks and Sewers

It is reported that an expenditure of about $500,000 has been recommended at Knoxville, Tenn., for waterworks improvements. Waterworks contracts have been awarded at Paoli, Ind.; Alton, Ill., and Cleveland. It is said that an engineer has been retained to prepare plans for the $1,500,000 pipe-line proposed at Jersey City. Bids are desired on a filtration plant at Fredonia, Kan., which will cost $40,000. Bids will soon be received on waterworks extensions at Montrose, Colo., for which $90,000 has been voted. Several cities, including Gurdon, Ark., and Warrenton, Ore., desire bids on bond issues recently voted. Bids on two sections of the Milwaukee intersecting sewer totaling over $400,000 have been opened, and one contract has been awarded. The lowest bid for storm sewers in Manhattan, New York City, opened March 2, was $33,306. Contracts for sewer work totaling $120,000 have been awarded at Darby, Pa. The contract for relocating sewers in Philadelphia preparatory to rapid transit construction was awarded at $156,000. The lowest bids on two sewer contracts opened in Detroit totaled $93,000. It is reported that the Baltimore Sewage Commission will contract for approximately $2,000,000 worth of work during the current year. The low bid on sewer contracts 36 and 148 at Baltimore was approximately $47,000. Plans have been presented to the sewer commission of Minneapolis for a two years' construction program which will cost $1,000,000. Bids are desired on sewer work at York, Pa., and Pablo Beach, Fla. Vancouver will construct the Clark Drive sewer by day labor at an estimated cost of $319,000. Plans have been prepared for an $86,000 sewer system and disposal plant at Coshocton, Ohio. It is reported that Pittsburgh has made plans to build nearly 9 miles of sewers.

Miscellaneous

A contract for constructing a steam railway from West Palm Beach, Fla., to Lake Hicpochee has been awarded. Cincinnati's share of the cost of eliminating grade crossings on the C. H. & D. railroad will approximate $2,000,000. A large terminal project is reported at Port Bolivar, Texas. Yonkers N. Y., desires bids on a $100,000 incinerator plant. Bids were opened by the Navy Department at Norfolk, Va., for a $300,000 floating crane. Irrigation contracts totaling $90,000 have been awarded at North Yakima, Wash. An $82,000 canal contract has been awarded by the U. S. Reclamation Service at Payson City, Utah. The Reclamation Service has also contracted for 53,000 bbl. of Portland cement. Contracts have been awarded for a 27-mile canal at Gonzales, La., and for drainage work involving 500,000 cu. yd. of excavation at Edina, Mo. Low bid on the wharf at Richmond, Cal., was $109,000. Low bid on section H of the Dorchester tunnel at Boston was $564,000, on which contract was awarded. The Public Service Commission for the first district, New York, has awarded the contract for constructing stations on the Fulton Street elevated railroad in Brooklyn at $258,000, the contract for supplying steel for third tracking section 2 of the Broadway elevated railroad in Brooklyn at $297,000, and also a $734,000 contract for constructing a section of the Jamaica Avenue elevated extension. Other large items include a $600,000 irrigation project at Echo, Ore.; a $400,000 project at Belle Fourche, S. Dak., and the news that engineers have been retained by the Board of Port Commissioners of New Orleans to prepare plans for a large canal.

Contracting News

Of Special Interest to Engineers, Contractors, Builders and Manufacturers of Engineering and Building Supplies

WATERWORKS.

Items Arranged Geographically

Boston, Mass.—Bids desired until Mar. 15 by D. Frank Doherty, Supt. Supplies, for furnishing Cow Pasture Pumping Station, 40 delivery valves No. 3 pump, 60 section valves No. 3 pump, 12 No. 6 section valves, No. 5 pump, 6 No. 3, 6 No. 4 and 6 No. 5 delivery valves for No. 5 pump.

Middleboro, Mass.—Bids desired Apr. 1 for a 500,000-gal. concrete tank, supported on concrete tower, about 110 ft. from ground to bottom of tank; cost about $25,000. G. A. Sampson, 14 Beacon St., Boston.

Sterling, Mass.—Citizens voted Mar. 1 to petition State Legislature for permission to issue bonds and construct water works.

Westfield, Mass.—See "Hydraulic Construction and River Improvements."

Sidney, N. Y.—The State Conservation Commission has approved the application of the village for installation of a Municipal Water Supply System. The decision of the Commission includes requirement of filtration.—Engineer, Henry W. Taylor, 100 State St., Albany.

Watervliet, N. Y.—The bill to enable Watervliet to issue $625,000 water improvement bonds was passed by State Assembly Mar. 3.

Jersey City, N. J.—J. Byers Holbrook, 3 S. William St., New York, is reported to have been engaged by the Jersey City Com. to prepare plans and supervise building of new pipe line, about to be laid from Jersey City to Brookdale on the way to the Boonton reservoir. Cost of pipe line will be about $1,500,000.

Bellevue, Pa.—The Ohio Valley Water Co. have engaged Chester & Fleming, Pittsburgh, Pa., to prepare plans and specifications and supervise the construction of a new 16-in. force main to be laid under Ohio River from pumping station on Neville Island to Bellevue.

Erie, Pa.—It is reported that plans are being completed for a new reservoir to cost about $200,000.

Hagerstown, Md.—The directors of the Washington County Water Co., reported to have decided to ask Public Service Comn. for permission to finance building of a storage reservoir on South Mountain of about 400,000,000 gals. capacity cost about $300,000.

Herndon, Pa.—F. A. Lahr, Secy. Boro. Council, writes it is not proposed to construct municipal water works. A franchise would probably be granted if favorable proposition was received.

Pottsville, Pa.—Bids desired until Mar. 18 by J. E. Kanter, County Controller, Pottsville, for furnishing air compressor and receiver, pumping engine, concrete work and piping at County Almshouse to supply water from artesion well to storage tank on hillside. Jay M. Whitman, Engr., Bullitt Bldg., Philadelphia.

Washington, D. C.—Bids desired at Bureau Yards and Docks, Navy Dept., Washington, D. C., for furnishing at the Navy Yards and Naval Stations, miscellaneous pipe fittings, etc., as follows: Until Mar. 23—Mare Island, Cal., Sch. 7976—Composition pipe fittings; Sch. 7972—Malleable iron elbows; galvanized wrought pipe. Puget Sound, Wash., Sch. 7976—Composition unions, angle and gate valves. Washington, D. C., Sch. 7990—Malleable iron pipe fittings; terra cotta pipe and fittings; extra heavy wrought iron pipe. Portsmouth, N. H., Sch. 8007—Seamless brass pipe. Charleston, S. C., Sch. 8002—Wrought pipe. Until Mar. 30 as follows: Charleston, S. C., Sch. 8039—Standard weight wrought pipe. Mare Island, Cal., Sch. 8013—Seamless copper pipe and union compositions. Brooklyn, N. Y., Sch. 8043—Composition pipe fittings. Norfolk, Va., Sch. 8043—Seamless drawn brass pipe. Applications for proposals should designate the schedules desired by number.

Asheville, N. C.—Bids desired until Mar. 22 by F. L. Conder, City Clk., for furnishing f. o. b. cars, Asheville, 5820 ft. about 166 tons, also 5820 ft. of about 186 tons, 10 in. c.-i. water pipe, and about 6200 lbs. special castings.

De Ridder, La.—Bids desired until Apr. 27 by P. C. Kay, City Clk., for purchase of $60,000 bonds to be used to purchase present water works and improve same, and construct a sewer system. D. N. Stokes, City Engr.

Nashville, Tenn.—A bill has been presented to State Legislature asking for an appropriation to install a pumping engine. Robt. Elliott, Comr. Water Wks.

Bellville, O.—Citizens voted $25,000 bonds for constructing water works from plans of Smith-Boulay Co., of Toledo; deep well water supply, gas engine driven pumps, c.-i. pipe distribution system, storage and pressure reservoir. Work to be done this season.

★*Items marked thus give the names of parties awarded contracts.*

Canal Dover, O.—It is proposed to spend $11,000 for water works improvements, including a 3,000,000 gal. pump and new boilers. Engineer, Geo. E. Arnold, of New Philadelphia.

★**Cleveland, O.**—Contract awarded to the Master & Mullen Constr. Co., Cleveland, for construction of coagulant house at Division Ave., filtration plant, and miscellaneous work in connection with same, at $38,905. (Bids opened Feb. 24).

Lorain, O.—Bids reported desired until Mar. 30 by Geo. N. Damon, City Aud., for $45,000 water works bonds.

Mansfield, O.—Bids desired until Mar. 15 by Bd. Control (O. Hursh, Dir.) for 2 deep-well pumps, direct connected to alternating current motors operating on a 2200 volt, 3-phase, 60-cycle circuit.

Toledo, O.—Bids desired Mar. 31 (extension of date from Mar. 18) by A. W. Bordman, Dir. Dept. Pub. Service, for furnishing material and constructing a high pressure fire service pumping station, including furnishing of machinery, etc. (advertised in Engineering Record). Specifications for reference on file at New York office of Engineering Record. W. J. Sherman, Consulting Engr., Toledo.

Yellow Springs, O.—Thos. A. Donley, Mayor, writes that it is proposed to vote on constructing water works, some time in April.

★**Youngstown, O.**—Contract awarded for furnishing 3000 water meters to Gamon Water Co., of Newark, N. J. (bids opened Feb. 25). H. C. Fox, Secy. Dept. Pub. Wks.

Schoolcraft, Mich.—O. A. Fellows, Village Clk., writes that bids will not be opened until about Apr. 1, for constructing water works, from plans of Smith & Boulay, of Toledo; cost about $20,000. Bonds already sold.

★Contract for sinking well only was awarded Mar. 1 to Robt. Kersey, of South Bend, Ind.

★**Alton, Ill.**—Contracts for new filters and equipment have been let by the Alton Water Works Co. to the Pittsburgh Filter Mfg. Co. Chester & Fleming, Pittsburgh, Pa., Consulting Engrs.

★**East Peoria, Ill.**—Contract reported awarded by Village Bd. for furnishing material and constructing a system of water works, to Public Service Cor. of Omaha, Neb., at $10,300. Arthur Marshall Morgan, Engr., Harris Trust Bldg., Chicago.

South Stillwater, Minn.—All bids have been rejected, as opened Mar. 2 by Oscar Hunke, Village Recorder, for constructing additions to water supply to include concrete reservoir, brick and concrete pumphouse, pumping machinery, distribution pipe line system, covering approximately 5 150-ft. 12, 8 and 4-in. pipe hydrants, specials, etc.

Winona, Minn.—Bids desired until Apr. 15 by Bd. Municipal Wks. (S. S. Strouse, Secy.) for furnishing material and drilling 4 artesian wells, each approximately 490 ft. in depth, in the parked grounds of the public levee adjacent to the city water works, advertised in Engineering Record. Alvord & Burdick, Engrs., Hartford Bldg., Chicago, Ill.

Fredonia, Kan.—C. B. De Tar, Supt. Water Wks., writes citizens have voted to issue bonds for water works improvements, and bids are desired until Mar. 22 for the work, to cost about $40,000, from plans of Worley & Black, Kansas City, Mo.

McCune, Kan.—Bids desired by City Clk. until Apr. 8 for constructing water works from plans of Henrici, Kent & Lowry, Eng. Co., Reserve Bank Bldg., Kansas City, Mo.

Osawatomie, Kan.—Bids desired until Mar. 16 by J. W. Allard, City Clk., for improvements to the water and light plant.

Bids desired for c. i. pipe and specials, valves and hydrants, steam generating unit, 100 kw, a 150 hp. boiler, filter equipment, a centrifugal pump, general construction, including concrete pipe laying, etc. Worley & Black, Engrs., Reliance Bldg., Kansas City, Mo.

Deadwood, S. D.—This city contemplates building a water works consisting of two auxiliary and settling reservoirs, 1,180,456 gal. and 2,395,518 gal., respectively; two filter beds, 284,000 gals. each, and a main reservoir for filtered water of 5,957,192 gals.; estimated cost, $73,566. Frank S. Peck, City Engr.

Clyde Park, Mont.—City Council has engaged Chas. T. Sacket, of Livingston, to prepare plans for a water works; cost about $20,000.

Lewistown, Mont.—Bids desired until Mar. 29 by H. L. Fitton for furnishing 100 tons c. i. standard c. i. pipe and specials; also furnishing 8 Eddy hydrants and 21 valves.

Jefferson City, Mo.—Chester & Fleming, Pittsburgh, Pa., are preparing plans for rebuilding one of the old settling basins for the local water works, which collapsed recently. Work will be undertaken immediately by the Water Co. on force account.

St. Louis, Mo.—At a meeting March 3 of the Bd. of Standardization, composed of Comptroller Player, Supply Commissioner Thomas and President Kinsey of the Bd. of Public Service, it was voted to purchase 8 miles of pipe to be used to construct a pipe line to the new Industrial School at Ft. Bellefontaine. Fund of $40,000 is available.

Gurdon, Ark.—Bids reported desired until Apr. 6 for $102,000 bonds, proceeds of which will be used for the installation of water and sewer systems and electric light plant. Albert C. Moore, Engr., Frisco Bldg., Joplin, Mo.

Galveston, Tex.—Bids desired until Mar. 18 by Bd. City Comrs. (John D. Kelley, Secy.) for furnishing f.o.b. Galveston, 200 tons 8 in. c. i. pipe, Class C.

Montrose, Colo.—P. W. Pinkerton, City Mgr., writes that bids will be received about Apr. 1 for reconstructing and extending water works, for which citizens recently voted $90,000 bonds.

Seattle, Wash.—Bids reported desired until Apr. 2 by Bd. Pub. Wks. for furnishing 2 pumps and motors for pump stations at West Seattle and Interbay. Motors, 2 phase, 60 cycle, 200 hp. Pump to be centrifugal or turbine of split case type.

Fairview, Ore.—J. B. & R. E. Koon, Engrs. Bd. of Trade Bldg., Portland, Ore., are preparing plans for municipal waterworks and preliminary reports and estimates have been made; bonds will be voted upon early in April; estimated cost $12,000.

Oregon, City, Ore.—Citizens of Oregon City and West Linn on Mar. 3 voted a $375,000 bond issue for construction of a 25-mile water pipe line for the benefit of the two cities, West Linn agreeing to stand one-third of the expense.

Warrenton, Ore.—Bids reported desired Apr. 12 by City Water Comn. (E. P. Smiley, Chmn.) for $150,000 bonds, issued for the purpose of constructing a water system.

Toronto, Ont.—The Bd. of Control has voted against the recommendation of the Wks. Com., that bids be asked for construction of the duplicate water works system at East Toronto, at an estimated cost of about $6,000,000.

SEWERAGE AND SEWAGE DISPOSAL.

Items Arranged Geographically

★**Warren, R. I.**—Contract awarded Mar. 4 by Sewer Comrs. (Wm. H. Smith, Secy.) for constructing about 15,000 ft. 8 to 18-in. sewers, sedimentation tanks and 2 small collection wells and motor houses to F. A. Gammino, Providence, at about $32,000. Chas. F. Chase, Engr., 75 Westminster St., Providence.

South Manchester, Conn.—Plans being prepared for storm water sewers on Main St., between Center and Park Sts.; also for an extension of Pearl St. storm water sewer to Harrison St. J. F. Bowers, City Engr.

Albany, N. Y.—Bids desired until Mar. 15 by Bd. Contract and Supply (Isidore Wachsman, Secy.), for constructing sewers in Washington and Delaware Aves., Northern Boule., Milton and Morris Sts.

Brooklyn, N. Y.—Bids desired until Mar. 17 by L. H. Pounds, Boro. Pres., for furnishing material and constructing sewers in 17th Ave. and 58th St. and outlet sewers in 54th St. and 20th Ave., requiring about 261 lin. ft. 36 in., 1675 lin. ft. 30 in. brick sewer, 133 lin. ft. 30 in. c.-i. pipe sewer, 1097 ft. 12 to 24 in. pipe sewer, 13 sewer basins, etc. Engineer's preliminary estimate, $18,623; also constructing 3 sewer basins, one each in Seeley St., 17th and Benson Aves. Total security, $510.

★Contract awarded by Public Service Comn. for the First Dist., 154 Nassau St., New York, for removal of temporary sewer in the 4th avenue subway, to Norton & Gorman, 303 Douglas St., Brooklyn, at $15,234.

Brockport, N. Y.—Charles C. Hopkins, Cutler Bldg., Rochester, has been engaged by this village to plan improvements to sewage disposal works. Cost about $25,000. Question to be submitted to vote of taxpayers in April.

Dunkirk, N. Y.—See "Hydraulic and River Improvements."

Elmira, N. Y.—About 8000 ft. 10 and 12 in. tile sewers contemplated.

New York, N. Y.—Bids desired until Mar. 18 by Marcus M. Marks, Pres. Boro. Manhattan, for alterations and improvements to sewer in W. 38th St. and 111th St., including relief sewers in 2d Ave. Security $3,500.

Bids desired until Mar. 16, same place as above, for constructing sewers in Plimpton Ave. Security $4,500; also constructing receiving basins on various streets. Security $1,800.

Paterson, N. J.—Bids desired about Apr. 6 for a storm water sewer, about 2420 ft. of 24 in., 2220 ft. 20 in., 370 ft. 18 in. and 1350 ft. 12 in. H. J. Harder, City Engr.

Monongahela, Pa.—See "Public Buildings and Schools."

★**Darby, Pa.**—Contracts have been awarded for the construction of terra cotta pipe for Upper Darby Township, Sects. 2, 3, 4 and 5 (bids opened Mar 2), as follows: Sect. 2, about 53,990 ft. 8 to 15 in., to McNicol Paving & Constr. Co., Philadelphia, $49,899; Sect. 3, about 30,322 ft. 8 to 15 in., to Frd. Buckius, Jr., Philadelphia, $22,557; Sect. 4, about 22,449 ft. 8 to 10 in., to Martin & Miller, Caldwell, N. J., at $13,575; Sect. 5, about 17,258 ft. 12, 15, 20 and 24 in. to Cantrell Constr. Co., Philadelphia, at $34,146. Total cost $120,180. A. F. Damon, Township Engr., Darby.

★**Philadelphia, Pa.**—Following are lump sum bids opened by Dept. of City Transit, Rcom 754, The Bourse, for Contract No. 12, sewer reconstruction preliminary to construction of city transit subways. This section of sewer is of brick and circular, 8 ft. and 6 ft. diameter, in stone cradle, with reinforced concrete junction chambers, total length 2600 ft., average depth 22 ft. Street car travel is required to be maintained over the trench: (a) car traffic diverted; (b) car traffic maintained: Keystone State Constr. Co., Pennsylvania Bldg., (a) $130,000; (b) $156,500; Frank Mark Contr. Co., 2820 N. 21st St., (a) $190,000; (b) $213,208; Emilio Pascuzzi, 601 Lincoln Bldg., (a) $200,000; (b) $252,104; Peoples Bros., Inc., 237 Commercial Trust Bldg., (a) $175,454; (b) $205,454; John McMenamy, 3115 Blakiston St., Holmesburg, (a) $231,000; (b) $241,000; Robert Lombardi, 600 Lincoln Bldg., (a) $153,000; (b) $164,700; Jos. Perna, 334 N. 65th St., Philadelphia, (a) $143,000; (b) $156,000 (awarded contract).

Pittsburgh, Pa.—Following sewer work contemplated by city: 7560 lin. ft. concrete; 200 lin. ft. reinforced concrete; 2080 lin. ft. brick; 39,700 lin. ft. t. c. pipe; 186 manholes, 150 catch basins.

Pittsbrugh, Pa.—See "Paving and Road-making."

York, Pa.—Bids will probably be received in April by B. A. Boyer, Supt. Streets & Pub. Improv., for the proposed sewage disposal plant, to include settling tank (Imhoff), pumping station, sludge beds, etc., cost about $90,000. Geo. W. Fuller, Consulting Engr., 170 Bway., New York.

Baltimore, Md.—Following are bids opened Feb. 24, by Bd. of Awards, for constructing Sect. 2, Ogiers Run Interceptor, storm water Contr. No. 36, and Sect. 3 of East Low Level interceptor sanitary Contr. 148; Storm Water Contr. 36: Ryan & Rielly, Union Trust Bldg., $47,681; M. O'Herron & Sons, 845 N. Howard St., $54,579; Jas. Ferry & Sons, Baltimore, $47,693; Carossa Bros., Baltimore, $61,563. This work calls for approximately 11,000 cu. yds. excavation, 2900 cu. yds. concrete, 120,000 lbs. reinforcing steel, 1900 lin. ft. concrete sheet piling, 24,500 lin. ft. spruce or pine piling, 145 cu. yds. brick masonry. Sanitary Contr. 148, approximately 9000 cu. yds. earth excavation and refill, 2600 lin. ft. 36-in. sewer.

The Sewerage Comn. (Calvin W. Hendrick, Ch. Engr.), will place under contract approximately $2,000,000 worth of sanitary sewers and storm water drains, bet. Jan. 1, 1915, and Jan. 1, 1916. This will include sewers and drains of all sizes from 5-in. terra-cotta pipe in house connections to re-inforced concrete storm water drains, 12-ft. 3-in. x 12-ft. 3-in., horse shoe section. Contracts for this work will be advertised from time to time during the year, and the necessary funds have already been provided by means of a bond issue.

Pablo Beach, Fla.—Bids desired until Mar. 20 by Bd. Bond Trus. of Pablo Beach (Chas. B. Mann, Chmn.), at Citizen's Bank, Jacksonville, for furnishing material and constructing a sewer system to include 14,080 ft. 8 and 10 in. pipe, 23 manholes, 2 automatic flush tanks, 17 lampholes, an electric air compressor, an oil engine driven air compressor, an air receiver, pneumatic ejectors, an ejector pit, 8,630 ft. 8 in. soil pipe force main. J. B. McCrary Co., Engrs., Atlanta, Ga.

De Ridder, La.—See "Water Works."

★**Cleveland, O.**—Contract awarded to Hoag & Zulla, 510 Commercial Bank Bldg., Cleveland, for construction of sewers, sewer connections, and overflows at W. 58th St. intercepting sewer outlet, at $11,400. (Bids opened Feb. 18).

Coshocton, O. — Chester & Fleming, Pittsburgh, Pa., have prepared complete plans and specifications for a sewage disposal plant, intercepting sewers and additions to sanitary sewer system at an estimated cost of $86,000.

★**Lodi, O.**—Contracts have been awarded as follows on bids opened on Feb. 16 by Village Council: For sewer system, to include about 6 miles pipe from 4 to 12 in. diam., with some 60 manholes and 19 flush tanks, to Central Ohio Constr. Co., Cleveland, at $17,740; sewage disposal plant, to Clement Co., Medina, O., at $10,297; this includes a small settling tank, dosing appliance and sand filtration area. L. E. Chapin, Engr., Frick Bldg., Pittsburgh.

New York, N. Y.—Following are 4 lowest bids opened by Marcus M. Marks, Pres. Manhattan Boro., Mar. 2, for construction of storm and sanitary sewers in 218th, 217th, 215th Sts., Seaman Ave. and other streets: (a) La Mura Contr. Co., 618 E. 181st St., Bronx, $33,306; (b) Marrone Constr. Co., $33,488; (c) S. Russek, Inc., $33,686; (d) Amanna & Sullivan, $34,518.

	(a)	(b)	(c)	(d)
Vitr. Pipe Sewer:				
403 lin. ft. 27-in. (combined)	$4.15	$6.00	$4.00	$7.00
561 lin. ft. 24-in. (storm)	3.00	3.75	3.50	4.00
649 lin. ft. 18-in. (storm)	2.50	2.50	3.00	2.00
391 lin. ft. 15-in. (combined)	1.85	2.25	3.00	4.00
479 lin. ft. 15-in. (storm)	1.85	2.00	2.75	2.00
881 lin. ft. 12-in. (storm)	1.65	2.00	2.50	1.00
514 lin. ft. 10-in. (sanitary)	2.70	2.25	3.00	2.00
1,906 lin. ft. 8-in. (sanitary)	2.25	2.25	2.25	2.00
209 lin. ft. 12-in. (culvert)	1.35	1.75	2.00	1.00
100 lin. ft. 12-in. cross drain	1.10	1.00	2.00	1.00
8 receiving basins (granite head	60.00	175.00	175.00	200.00
4 sluice basins	115.00	55.00	40.00	75.00
38 manholes (sanitary and combined sewers)	60.00	50.00	55.00	60.00
32 manholes (storm sewer)	60.00	41.00	45.00	35.00
1 dropwell manhole (No. 6)	90.00	120.00	125.00	200.00
1 dropwell manhole (No. 13)	70.00	60.00	125.00	100.00
1 outlet chamber and appurtenances	1,000.00	3,000.00	1,200.00	1,000.00
610 spurs for house connections	1.00	.01	1.00	.50
49 sq. yds. slope pavt.	.25	1.00	1.00	1.50
40 cu. yds. rubble masonry in mortar	5.00	4.32	3.50	5.00
60 cu. yds. riprap	.50	1.00	1.25	1.50
20 cu. yds. (Class B) concrete	3.00	5.00	4.50	5.00
3,001 cu. yds. rock excav. and removed	3.80	3.00	3.00	4.00
1 M ft. timber and plank for foundation in place	30.00	30.00	40.00	30.00
10 M ft. timber and plank for bracing and sheeting	30.00	20.00	30.00	.01
500 lin. ft. piles	.50	.40	.35	.40

Milwaukee, Wis.—Following are unit prices of lowest bids opened Feb. 24 by the Sewerage Comn. for building Milwaukee River low level sewer for West Side; Contract 10: (a) Engineer's approximte estimate; (b) Jones & Erbeck, Pittsburgh, Pa.; (c) Jos. Hanreddy, Chicago, Ill.

	(a)	(b)	(c)
Standard Section—Brick Arch Concrete Invert:			
2,023 lin. ft. 48-in. sewer	$18.00	$19.22	$24.70
2,667 lin. ft. 42-in. sewer	15.32	19.00	22.20
2,719 lin. ft. 36-in. sewer	12.93	14.70	17.40
1,071 lin. ft. 30-in. sewer	10.00	12.92	16.10
Standard Section—Lateral Branches Terra Cotta in Concrete:			
809 lin. ft. 18-in. sewer	9.45	7.50	13.20
463 lin. ft. 15-in. sewer	8.93	7.47	13.30
449 lin. ft. 12-in. sewer	7.14	2.02	12.00
619 lin. ft. 10-in. sewer	8.65	6.57	11.70
Drop Manholes:			
12 lin. ft. 9-in. wall to 12 ft. deep	5.40	4.00	4.70
7 lin. ft. 13-in. wall below 12 ft. deep	8.10	4.50	6.60
Standard Manholes:			
629 lin. ft. 9-in. wall to 12 ft. deep	5.10	4.00	4.40
286 lin. ft. 13-in. wall below 12 ft. deep	7.80	4.50	6.30
53 manhole frames and covers	11.40	20.00	8.00
Special Foundation—Where Ordered:			
19,820 lin. ft. piles driven	.48	1.25	.36
10,214 M ft. timber caps	40.00	50.00	30.00
32,839 lbs. steel reinforcing	.04	.05	.04
42,295 M ft. plank foundation	40.00	50.00	25.00
1,318 ft. 4 x 4 in. piles under pipe sewers	.12	55/1000	30/1000
Alternative Bid—All Concrete Sewer:			
2,023 lin. ft. 48-in. sewer	17.90	19.22	24.40
2,667 lin. ft. 42-in. sewer	15.06	19.00	21.80
2,719 lin. ft. 36-in. sewer	12.06	14.70	17.00
4,251 lin. ft. underdrain	.40	.30	.55
Total for standard section without foundation	149,643.00	162,804.00	208,292.00
Total for standard section with pile or plank foundation	164,429.00	193,837.00	220,838.00
Total for alternate section without foundation	147,850.00	162,804.00	205,531.00
Total for alternate section with pile or plank foundation	162,636.00	193,837.00	218,077.00

★*Items marked thus give the names of parties awarded contracts.*

★**Milwaukee, Wis.**—Following are unit prices of lowest bids opened Feb. 24 by Sewerage Comn. (T. Chalkley Hatton, Ch. Engr.) for building the Milwaukee River low level sewer for the East Side, Contract 9: (a) Engineer's approximate estimate; (b) Jones & Erbeck, Pittsburgh, Pa. (awarded contract on the total bid for Standard section, with pile or plank formation); (c) Jos. Hanreddy, Chicago, Ill.

	(a)	*(b)	(c)
Standard Section—Concrete:			
804 lin. ft. combined 36 and 51 in. section in open cut	$32.88	$32.92	$34.00
982 lin. ft. combined 36 and 51 in. section in tunnel..	33.96	38.12	36.20
Standard Section—Brick Arch and Concrete Invert:			
4,427.5 lin. ft. 36-in. sewer in open cut	14.58	13.70	21.10
1,891.63 lin. ft. 30-in. sewer in open cut	7.92	11.92	14.00
1,146.54 lin. ft. 36-in. sewer in tunnel	16.20	18.32	31.10
1,863.28 lin. ft. 30-in. sewer in tunnel	16.20	16.82	26.90
Main Sewer—Terra Cotta in Concrete:			
599.10 lin. ft. 24-in. sewer	9.24	7.25	6.90
378.67 lin. ft. 20-in. sewer	8.88	7.00	5.90
Standard Section—Lateral Branches Terra Cotta in Concrete:			
327 lin. ft. 18-in. sewer	8.76	7.50	13.00
191 lin. ft. 15-in. sewer	8.88	7.47	13.50
692 lin. ft. 12-in. sewer	8 40	7.02	12.30
1,656 lin. ft. 10-in. sewer	7.38	6.57	12.10
Drop Manholes:			
66 lin. ft. 9-in. wall to 12 ft. deep	5.40	4.00	4.70
44 lin. ft. 13-in. wall over 12 ft. deep	8.10	4.50	6.00
Standard Manholes:			
730 lin. ft. 9-in. wall to 12 ft. deep	5.10	4.00	4.40
483 lin. ft. 13-in. wall over 12 ft. deep	7.80	4.50	6.30
64 manhole frames and covers	11.40	20.00	8.00
780 lin. ft. 18-in. sewer to be removed and replaced with standard 18-in. section	5.71	7.00	7.20
1 bulkhead and extension to Pulaski St. Sewer (lump sum)	540.00	650.00	750.00
Special Foundation—Where Ordered:			
27,050 lin. ft. piles driven	.48	1.25	.36
12.9 M ft timber caps	40.00	50.00	30.00
60,000 lbs. steel reinforcing	.04	.05	.04
50.076 M ft. plank foundation	30.00	50.00	25.00
1,700 ft. 4 x 4 in. piles under pipe sewers	.12	55/1000	30/1000
93 cu. yds. concrete bolsters	14.40	15.00	10.00
7,122 lin. ft. underdrain	.40	.30	.35
Alternative Bid:			
4,427 5 lin. ft. 36-in. sewer in open cut, all concrete	14.24	13.70	20.60
3,009.82 lin. ft. 44 x 66-in. sewer in tunnel	20.94	19.22	23.00
Total for standard section without foundations	233,497.00	239,008.00	324,046.00
Total for standard section with pile and concrete bolsters and plank foundations	255,292.00	282,594.00	342,721.00
Total for alternate section without foundations	246,259.00	244,512.00	305,279.00
Total for alternate section with pile and concrete bolsters and plank foundations	268,053.00	288,098.00	323,954.00

★**Ft. Wayne, Ind.**—Contract awarded Mar. 4 by Bd. Pub. Wks. (H. W. Becker, Clk.) to Moellering Constr. Co., Ft. Wayne, for about 10,778 ft 12, 15 and 18-in. pipe sewers, 19 Y's, 29 catch basins, 52 manholes, etc., at $1.56 and $1.54 per ft. for work complete.

Detroit, Mich.—Lowest bid opened Feb. 23, by Dept. Parks and Boulevards (H. W. Busch, Secy.) for installing a sewerage system on Belle Island Park, to include sewers and manholes, treating plant liquid chlorine disinfectant apparatus and pumping plant, reported submitted by Candler Dock & Dredge Co., at $67,000. Lowest bid for concrete and vit. crock sewer submitted by Geo. R. Cooke and Wm. Blank & Co., at about $26,000.

Flint, Mich.—D. E. Newcomb, City Clk., writes bids are desired until Apr. 1 for the construction of sewers. E. C. Shoecraft, City Engr.

Appleton, Wis.—Bids reported desired until Mar. 22 by E. L. Williams, City Clk., for constructing sewers in various streets.

Mt. Ayr, Ia.—This town is planning a $30,000 sewer system.

Brainerd, Minn.—Bids desired until Apr. 5 by A. Mahlum, City Clk., for constructing lateral sewer in Sewer Dist. No. 5, known as Lateral Sewer A-5; also lateral sewer in Sewer Dist. No. 4, known as Lateral Sewer B-2.

Minneapolis, Minn.—Carl Illstrup, City Sewer Engr., has presented to Sewer Com. of Council, plans for sewers contemplated during 1915 and 1916; total estimated cost $1,000,000.

St. Paul, Minn.—Bids reported desired until Mar. 15 by August Hohenstein, City Purchasing Agent, for constructing sewers in various streets.

Minot, N. D.—City will construct a sewage disposal plant. E. J. Thomas, City Engr.

Springfield, Mo.—S. R. Fisher, City Engr., writes that no bids were opened Mar. 1 for sewer work and none will be received during month of March.

Gurdon, Ark.—See "Waterworks."

★**Texarkana, Tex.**—Contract reported awarded to construct system for Sewer Dist. No. 3 (Rose Hill) to W. J. Jordan, of Texarkana, at $12,817.

Enumclaw, Wash.—Bids reported desired until Mar. 31 by O. E. Magnunson, City Clk., for constructing 13,000 ft. sewer. W. I. Lippard, City Engr.

Montreal, Que.—Bd. of Aldermen has approved report of Bd. of Control for $112,900 for sewers to be constructed in Bordeaux Ward.

Toronto, Ont.—Bids desired until Mar. 16 by T. L. Church (Mayor), Chmn. Bd. Control, for constructing sewers in Laughton Ave., Davenport Rd. to Exeter Ave., and West Toronto Sewer System, Div. No. 2, outlet, Laughton Ave., from Pelham Ave. to Davenport Rd.; also outlet, Pelham Ave. and Laughlin Ave. to Kingsley Ave. and Symington Ave., via Laughton and Kingsley Ave.

Calgary, Alta.—City will construct sewer from Elboya across Stanley Park to include about 1,700 ft. 24-in. pipe sewer; estimated cost, $17,000. Work to be done by day labor, city force.

Vancouver, B. C.—A. D. Baer, Ch. Engr., Vancouver and District Joint Sewerage and Drainage Bd., writes it has finally been decided to construct Clark Drive sewer by day work, at an estimated cost of $319,000.

BRIDGES.

Items Arranged Geographically

West Groton, Mass.—The construction of a reinforced concrete bridge crossing Squannacook River, at West Groton, has been authorized by towns of Shirley and Groton. Bids will be received until Mar. 29. Address Burtis S. Brown, 88 Broad St., Boston, who is engineer in charge.

Connecticut.—See "Paving and Roads."

Elma, N. Y.—Bids reported desired until Mar. 20 by N. Hucker, Town Clk., Rice Rd., Elma Center, for constructing a reinforced concrete arch highway bridge. Geo. C. Diehl, Engr., 575 Ellicott Sq., Buffalo.

New York, N. Y.—Bids desired until Mar. 18 by F. J. H. Kracke, Comr. Bridges, New York City, for additions and repairs to the south approach of Fresh Kills Bridge, over Richmond Creek. Security $1,000.

Mount Holly, N. J.—Bids were opened Mar. 3 by Bd. Chosen Freeholders, Atlantic and Burlington Counties, at Court House, Mt. Holly, for repairs to bridge at Chestnut Neck, N. J.; Kelley, McFeeley Co., Camden, $99,900; Edw. S. Bader, Atlantic City, $92,000; Bridgeton Constr. Co., Bridgeton, $84,700; Atlantic Constr. & Supply Co., Atlantic City, $93,000; Edw. Fay & Son, Philadelphia, Pa., $74,812.

Lowest bid opened same time and place as above for 2 concrete bridges, submitted by Rees & Taylor, Trenton, at $2,699 for Medford Bridge and $1,798 for Bucks Cove Bridge.

Trenton, N. J.—Bids desired until Mar. 23 by County Bd. Chosen Freeholders, Trenton, for constructing a reinforced concrete arch bridge over Sanhican Creek at Lee Ave., Trenton. Span 60 ft., roadway, 30 ft., 2 sidewalks, 10 ft. each. Macadam floor. Estimated cost, $12,000. Theo. Tobish, County Engr.

York, Pa.—Bids desired until March 18 by County Comrs. and F. S. Bartenschlager, Co. Controller, for constructing a 55-ft. reinforced concrete arch or 60-ft. iron bridge over south branch of Muddy Creek, between East Hopewell and Fawn Townships.

Bowling Green, Va.—Bids desired by the County Clerk, Bowling Green, until Mar. 18, for constructing steel bridge 282 ft. long over North Anna River between Hanover and Caroline Counties. G. P. Coleman, State Highway Comr., Richmond.

Elkins, W. Va.—All bids opened Mar. 1 by County Court (T. Pitt, Clk.) for constructing 7 bridges have been rejected. Bids will be received during April. All to be constructed of concrete except Stone House Bridge, which will be constructed of concrete or steel.

★**Wilmington, N. C.**—Contracts for constructing Hilton Bridge awarded as follows: Substructure to Vaughan Constr. Co., Shawsville, Va., and superstructure to Virginia Bridge & Iron Works, Roanoke, Va., at total of about $60,000.

Jacksonville, Fla.—Bd. County Comrs. voted to construct bridge over St. Johns River at Laura St. to be 2 deck of concrete and steel.

★**Tampa, Fla.**—Contract for constructing bridge and culverts on county brick roads awarded by County Comrs. to Keynton Co., at $11,685.

Tavares, Fla.—See "Paving and Roads."

★**Bowling Green, Ky.**—Contract has been awarded by County Comrs. for constructing a 3 span bridge 389 ft. in length to Vincennes Bridge Co., Vincennes, Ind., at $6,348. Next 3 lowest bids: East St. Louis Bridge Co., East St. Louis, Ill., $6,522; Miller & Bucheiding Co., St. Louis, Mo., $6,525; Louisville Bridge Co., Louisville, $6,662.

Clinton, Tenn.—Bids desired until Mar. 25 by County Bridge Comn., Clinton (C. J. Sawyer, Chmn.), for constructing bridges over Clinch River as follows: Material to be either reinforced concrete or steel on concrete piers and abutments. At Moores Ferry, 6 spans if steel, 8 spans if concrete. Total length between abutments, 675 ft. At Clinton, 5 spans if steel, 6 spans if concrete. Total length between abutments, 525 ft., 5 spans if steel 7 spans if concrete.

Rogersville, Tenn.—Bids reported desired until Mar. 20 by Albert Lyons, Chmn. Bridge Com., Rogersville, for constructing 10-ton steel bridge across Holston River, about 1600 ft. long, 16 ft roadway, substructure of concrete masonry.

Hamilton, O.—County Comrs. voted to construct Columbia Bridge, structure to be 600 ft. long.

Youngstown, O.—Construction of bridge at East Federal St. is contemplated. City Engineer estimates cost of structure at $500,000. City to pay 35 per cent cost and Lake Shore, Erie, Pennsylvania and Baltimore & Ohio R.R. Cos. 65 per cent of cost.

Dubuque, Ia.—Two county bridges, steel with concrete floors, at an approximate cost of $30,000 will be built early this spring. W. B. Turley, County Engr., Dubuque.

Keokuk, Ia.—The U. S. House passed bill authorizing Keokuk & Hamilton Bridge Co. to build bridge over Mississipi River at Keokuk.

Crookston, Minn.—Bids reported desired until Mar. 23 by H. J. Welte, Co. Aud., for constructing metal and concrete culverts from 12 to 48 in. during 1915.

East Grand Forks, Minn.—Lowest bid opened by City Council for repairs and approaches to De Mers Ave. Bridge submitted by Jardine & Anderson, Fargo, at $13,771.

New Ulm, Minn.—Bids desired until Mar. 18 by Wm. Backer, City Clk., for furnishing material and constructing combination steel and concrete approaches to Beussmann and Courtland highway bridges, spanning Minnesota River at New Ulm. F. D. Minium, City Engr.

★**Winona, Minn.**—Geo. W. Hoffman, Village Recorder, writes bids were opened Mar. 1 for constructing an approach from Wisconsin side of High Wagon Bridge across the Mississippi River. Bids were received on 3 different plans: steel approach, concrete approach, panel railing; or concrete approach, open type railing, and following are 3 lowest bids according to different plans, contract being let on concrete approach open type railing. L. P. Wolff, Engr., Germania Life Bldg., St. Paul.

Steel approach—Western Constr. Co., La Crosse, Wis., $78,650; Central State Bldg. Co., Indianapolis, Ind., $79,650; Indiana Bridge Co., Muncie, Ind., $81,300.

Concrete approach, panel railing—O'Hagan & Lake Co., Chicago, Ill., $95,900; John J. O'Heron Co., Chicago, Ill., $100,500; General Constr. Co., St. Paul, Minn., $101,683.

★Concrete approach open type railing—O'Hagan & Lake Co., Chicago, Ill., $96,400 (awarded contract); John J. O'Heron Co., Chicago, Ill., $101,000; General Constr. Co., St. Paul, $101,983.

Larned, Kan.—Bids reported desired until Mar. 15 by W. C. Ware, Co. Clk., for constructing a 300 ft., 6-arch reinforced concrete bridge or a 6-span flat top reinforced concrete bridge across Arkansas River.

Newton, Kan.—Bids desired until Mar. 22 by County Clerk, Newton, for constructing reinforced concrete superstructures and substructures of Peter Reiger Bridge, span 50 ft., and Kissoway Bridge, span 30 ft., estimated cost $5,500.

★**Grand Forks, N. D.**—Contract awarded Feb. 23 for constructing bridge over Red River of North, on De Mers Ave., to Grand Works Concrete Co., Grand Forks, at $6,870. Next three lowest bids: L. M. Bartlett, Fargo, $7,995; Northern Constr. Co., Grand Forks, $8,200; E. A. Broseth Co., Grand Forks, $8,275. W. H. Alexander, City Aud.

★**Tyndall, S. D.**—M. J. Maus, Co. Aud., writes contract for bridge work during 1915 has been awarded to Iowa Bridge Co., Des Moines, Ia., and for culverts, to Klamer Mfg. Co., Dubuque, Ia.

San Marcial, N. M.—Bids desired until Apr. 5 by County Commissioners at Socorro, for constructing a bridge over Rio Grande near San Marcial. Bridge to consist of 5 pony truss steel spans, curved upper chords of 90 ft. each. Superstructure to consist of creosoted piles of 60 ft. Estimated cost, $15,000. Jas. A. French, State Engr., Santa Fé.

★**La Conner, Wash.**—Contract for constructing 230 draw span of steel construction bridge in La Conner awarded by County Comrs., at Mt. Vernon, to Illinois Steel Bridge Co., Chicago, Ill., at $20,000.

Olympia, Wash.—Plans are being prepared by W. H. Yeager, Jr., County Engineer, for constructing two concrete bridges, one over Scatter Creek and other over Perry Creek; cost about $55,000.

★**Renton, Wash.**—Contract for constructing steel bridge over White River, awarded by Bd. County Comrs. at Seattle to Pacific Iron Wks., Portland, Ore., at $9,744.

Seattle, Wash.—Citizens voted to issue $1,374,500 bonds for constructing 3 concrete bridges as follows: Across Salmon Bay at 15th Ave., n. w., $479,500; across Lake Washington canal at Fremont, cost $350,000; across Lake Union at 10th Ave., n. w., cost $545,000.

Spokane, Wash.—Later official reports state bids will be opened by County Commissioners at Spokane, Mar. 25, for constructing a bridge across Spokane River in vicinity of present Nine Mile Bridge. It will be a reinforced concrete arch bridge 150 ft. long and 20 ft. wide, on a rock foundation. J. W. Starck, Co. Engr.

★**Portland, Ore.**—Following are unit prices of successful bidders for the proposed bridge to be constructed across Columbia River between Portland, Ore., and Vancouver, Wash. (bids opened Feb. 23 by Interstate Bridge Comn.).

Complete plans were prepared and bids were received on this bridge, including swing span, as a movable span, and upon a bridge including a lift span, as a movable span. Contracts were awarded on the lift span, on figures reported below. (Harrington, Howard & Ash, Consulting Engrs., Kansas City, Mo.)

★Contract 1—Lift—Main River—Manufacture—Awarded to U. S. Steel Products Co., Portland, as follows:

12,924,000 lbs. truss spans, etc.	$0.0259
822,000 lbs. towers	.0343
620,000 lbs. rails, etc.	.02755
318,000 lbs. sheaves, etc.	.10
Motors (lump sum)	4,325.00
Switchboards (lump sum)	456.00
Gasoline engine (lump sum)	728.00
Total	$417,316

★Contract 2—Main River—Erection—Awarded to Porter Bros. Co., Portland, as follows:

12,924,000 lbs. truss spans, etc.	$0.0055
822,000 lbs. towers	.0090
620,000 lbs. rails, etc.	.0040
318,000 lbs. sheaves, etc.	.0125
Motors (2) (lump sum)	200.00
Gasoline engine (lump sum)	200.00
Electric wiring (lump sum)	3,100.00
Operator's house (lump sum)	2,000.00
Gate tender's house (lump sum)	700.00
621 cu. yds. counter weights	14.00
Total	$99,829

★Contract 5—Steel—Sloughs—Manufacture—Awarded to Northwest Steel Co., Portland, as follows:

3,191,000 lbs. metal	$0.0255
259,000 lbs. rails	.03
Total	$89,140

★Contract 6—Sloughs—Erection—Awarded to Porter Bros. Co., as follows:

3,191,000 lbs. metal	$0.0055
259,000 lbs. rails	.004
Total	$18,886

★Contract 7—Substructure—Lift—Main River—Awarded to Pacific Bridge Co. as follows:

5,350 cu. yds. pier shafts	$9.00
109,000 lbs. reinforcing metal	.03
15,810 cu. yds. bases	12.00
418 cu. yds. bases buried piers	12.00
77,900 lin. ft. piles	.46
5,900 lin. ft. dolphins	.25
105 M ft. timber, etc.	30.00
16,000 cu. yds. riprap	2.05
34,600 sq. yds. mattress	.70
Totals, riprap	$319,415
Totals, mattress	$310,835

★Contract 9—Substructure—Sloughs—Awarded to Pacific Bridge Co., Portland, as follows:

2,480 cu. yds. pier shafts	$10.00
34,000 lbs. reinforcing metal	.04
2,310 cu. yds. bases	16.00
894 cu. yds. bases buried piers	16.00
58,100 lin. ft. piles	.35
11,000 cu. yds. riprap	2.00
21,000 sq. yds. mattress	.50
Totals, riprap	$119,759
Totals, mattress	$108,259

★*Items marked thus give the names of parties awarded contracts.*

★Contract 10—Embankments—Awarded to Tacoma Dredging Co., Tacoma, as follows:

931,000 cu. yds. embankment in place	$0.1324
3,000 cu. yds. ditches	.25
38,000 sq. yds. slabs	.80
1,900 cu. yds. rock fill	.02
Total	$158,214

★Contract 11—Floor on Steel Structures—Awarded to Warren Constr. Co., Portland, as follows:

21,624 sq. yds. bitulithic	$3.48
3,254 sq. yds. sidewalk slabs	2.10
21 cu. yds. hand rails	30.00
2 bronze lamp standards	44.00
Total	$82,803

Grand total of Lift Span Layout as above, $1,305,064.

Following are totals of lowest bidders on Swing Span Layout: Contract No. 3, Main River, manufacture, U. S. Steel Products Co., $394,078.50; Contract No. 4, Main River, erection, Porter Bros. Co., $146,806; Contract No. 5, Sloughs, manufacture, Northwest Steel Co., $89,140.50; Contract No. 6, Sloughs, erection, Porter Bros. Co., $18,586.50; Contract No. 8, Main River, substructure, Pacific Bridge Co., $365,689; Contract No. 9, Sloughs, substructure, Pacific Bridge Co., $119,759.60; Contract No. 10, Embankments, Tacoma Dredging Co., $158,214.40; Contract No. 11, Floor on Steel Structures, Warren Constr. Co., $82,802.92. Grand total of Swing Span Layout, $1,375,077. Showing the saving by adopting Lift span of $70,014.

Colusa, Cal.—J. W. Kaerth, Engr. County Superv., writes bids are desired until Apr. 6 (extension of date from Mar. 2) for constructing 37 concrete bridges, ranging from a 6-ft. culvert to a 2600-ft. concrete trestle bridge.

Riverside, Cal.—Plans have been completed by City Engineer for constructing concrete bridge on Victoria Ave.; cost $50,000.

Armstrong's Corner, N. B.—Bids desired until Mar. 31 by John Morrissey, Minister Pub. Wks., Fredericton, for constructing metal superstructure of Merritt Bridge, Armstrong's Corner, Parish of Petersville, Queens County, consisting of a through riveted steel truss span of 94 ft. from c. to c. of end bearings.

★**Almonte, Ont.**—Contracts for constructing Blakeney Bridge of concrete has been awarded to Ontario Bridge Co., Toronto, at $8,300.

PAVING AND ROADS.

Items Arranged Geographically

Springfield, Mass.—Permit issued to Jos. B. Lupien, to erect a 4-story apartment house at 236 N. Main St., to cost $50,000.

Connecticut.—Bids desired by Chas. J. Bennett, State Highway Commissioner, State Capitol, Hartford, until 2 p. m., Mar. 22, for the following sections of highway improvement:

Bloomfield: 6610 lin. ft. of native stone macadam construction; also about 6879 lin. ft. of trap rock macadam and surfacing construction. Plans at house of Geo. F. Humphrey, 1st selectman, Bloomfield.

South Windsor: 8310 lin. ft. bituminous native stone construction. Plans at house of W. W. Grant, 1st selectman, South Windsor, Wapping.

Enfield: 8650 lin. ft. special macadam construction. Plans at Town Clerk's office, Town Bldg., Enfield.

Wethersfield: 7685 lin. ft. bituminous macadam construction. Plans at store of A. W. Hanmer, 1st selectman, Wethersfield.

Columbia: 9964 lin. ft. of native stone macadam construction. Plans at selectmen's office, Columbia.

Windham: 6930 lin. ft. crushed gravel construction. Plans at selectmen's office, Willimantic.

Waterbury: 10,100 lin. ft. gravel construction. Plans at City Engineer's office, Waterbury.

Stamford: 4810 lin. ft. gravel or native stone macadam construction. Plans at selectmen's office, Stamford.

Woodbury: Construction of two (2) reinforced concrete bridges together with approaches: 1st, two 20-ft. span bridge over Nonewaug River (Skew Reinforced Concrete Slab). 2d, two 12-ft. span bridge over South Brook (Skew Reinforced Concrete Slab). Plans at Town Clerk's office, Woodbury.

New Haven, Conn.—About $100,000 paving bonds have been sold by city.

Buffalo, N. Y.—F. G. Mumm Contr. Co. submitted lowest bid for repairs to asphalt paved streets for the year commencing July, 1915, to July, 1916.

Following are lowest bids opened by Bd. Pub. Wks., Mar. 4, for paving, (a) brick, (b) asphalt:

Alsace Ave., Constitine Constr. Co., Dewey Ave., (a) $12,975; German Rock Asphalt Paving & Contr. Co., D. S. Morgan Bldg., (b) $15,100.

Garden St., Erie Contr. Co., (a) $4,700; German Rock Asphalt Paving & Contr. Co., (b) $5,770.

Hazel Pl., Erie Contr. Co., (a) $2,800; H. P. Burgard & Co., Filmore Ave., (b) $2,750.

Halbert St., Spire & Prior, Ellicott Sq., (a) $14,074; German Rock Asphalt, Paving & Contr. Co., (b) $14,540.

Moselle St., Erie Contr. Co., (a) $22,000; H. P. Burgard Co., (b) $22,080.

Elmira, N. Y.—About 12,000 sq. yds. paving contemplated; brick will probably be used on concrete base.

New York, N. Y.—Bids desired until Mar. 18 by Douglas Mathewson, Pres. Boro. Bronx, for furnishing and delivering the following: 200,000 gals. coal tar road oil; 200,000 gals. tar road oil; 200,000 gals. asphalt road oil; 4000 cu. yds. grits; 1½-in broken trap rock and broken trap rock stone screenings.

Bids desired until Mar. 16 same place as above for regulating, grading, curbing, flagging sidewalks, etc., on Holland and Westchester Aves., and curbing and flagging sidewalks on Sedgwick Ave., in all 31,415 sq. ft. concrete sidewalk, etc., also paving with bituminous concrete pavement, Zerega Ave., 4710 sq. yds. pavement, etc.

Watertown, N. Y.—E. W. Sayles, City Engr., writes following are lowest bids opened Mar. 5 for creosoted wood block pavt.: W. F. Cogley, Utica, $24,920, 16-lb. oil, 8-in. concrete base; W. H. Ring, Constr. Co., Ogdensburg, $23,945, 16-lb. oil, 6-in. concrete base; W. F. Cogley, $25,513, 18-lb. oil, 8-in. concrete base; W. H. Ring Constr. Co., $24,249, 18-lb. 6-in concrete base; P. W. Mulderry, of Albany, bid lowest for vitr. block, $20,038.

Freehold, N. J.—Lowest bid opened Mar. 3 by the Bd. Chosen Freeholders of Monmouth County, for constructing a bituminous road at Deal was submitted by T. J. McGovern, Fisher Bldg., Trenton, at $24,000.

Hackensack, N. J.—The Bd. of Freeholders will construct about 37,790 sq. yds. of Topeka pavement on 4-in. macadam base, using Bermudez asphalt; estimated cost, $180,000. Plans and specifications submitted to State Road Commissioner for approval.

★**Roselle Park, N. J.**—Contract awarded Mar. 5 for concrete paving and appurtenances to C. H. Winans Co., Elizabeth, at $30,793; next 3 lowest bids: John Dorer, Irvington, $32,314; T. Foster Callahan, Elizabeth, $32,381; Edw. L. Faughan, Elizabeth, $32,928. Engineer, W. H. Luster 286 N. Broad St., Elizabeth. Harwood Fish, Mayor.

Tenafly, N. J.—Bids desired until Mar. 17 by Mayor and Council, for grading, macadamizing and otherwise improving Browning Ave. from Clinton Ave. to Jay St.; also furnishing f. o. b. siding Tenafly, broken trap rock to consist of 700 tons 1½-in. and 350 tons ¾-in. stone, 200 tons ¾ in. and dust mixed, 100 tons dustless screenings, 100 tons dust; also hauling and spreading crushed stone from Erie R. R. siding, to any and all parts of the Boro, excepting section lying 1000 ft. east of Engle St. Price requested per ton hauled and spread. E. Stanley Clarke, Chmn. Road Com.

West Orange, N. J.—Bids desired until Mar. 16 by Geo. W. Foster, Town Clk., for a road scarifier.

Bloomsburg, Pa.—Bids desired until Apr. 1 by County Comrs., at Bloomsburg, for constructing a reinforced concrete floor on a 133-ft. span truss bridge over Catawissa Creek near British Farm, Beaver Township; also a creosoted block floor or reinforced concrete floor on the 1436 ft. truss bridge over Susquehanna River near Mifflinville.

Carbondale, Pa.—See "Sewerage and Sewage Disposal.

West Newton, Pa.—Bids desired until Mar. 16 by A. M. Dick, Boro. Clk., for paving with vitr. brick and concrete curbing, portions of 5th, 10th, 1st and School Sts., and Robinson Alley; also furnishing 621,000 bricks.

Pittsburgh, Pa.—Following paving work contemplated by city: Repaving with asphalt 9200 sq. yds.; brick 1970 sq. yds.; wood block 4420 sq. yds. and ligonier block 33,200 sq. yds.

★Contract awarded Mar. 2 by Robt. Swan, Dir. Dept. Pub. Wks., at office of City Controller, for grading, paving and curbing W. Liberty Ave. and constructing a storm sewer for drainage, and contract has been awarded to Booth & Flinn, Ltd., Pittsburgh, at $354,294.

Rockville, Md.—Bids desired until Mar. 23 by County Comrs. at Rockville, for constructing a section of State Aid Highway in this County, for a distance of about 3.52 miles. Plans may be obtained at office of State Roads Comn., Baltimore (Wm. L. Marcy, Secy.)

Lawrenceville, Va.—Bids desired by County Clk., Lawrenceville, until Mar. 22, for constructing about 70 miles of soil roads in Brunswick County.

Charleston, W. Va.—Bids desired until Mar. 24 by Bd. of Affairs (O. A. Petty, Pres.) for curbing and paving 15 streets, aggregating about 40,700 ft. curb and 71,640 sq. yds. paving, advertised in Engineering Record; G. S. Brown, City Engr., Lowenstein Bldg. Specifications are on file in New York office of Engineering Record.

Baltimore, Md.—Following are bids opened by Paving Commission Mar. 3 for paving Contract 112: (a) P. Flannigan & Sons, Harford Rd. and B. & O. R.R., Baltimore, $94,356; (b) American Paving & Constr. Co., Montebello Ave. and Jenkins Lane, Baltimore, $97,932; (c) Union Paving Co., Emerson Hotel, Baltimore, $113,221; (d) P. F. Reddington, 321 St. Paul St., Baltimore, $112,142; (e) Baltimore Asphalt Block & Tile Co., Monroe & Lorman Sts., Baltimore, $112,486.

	(a)	(b)	(c)	(d)	(e)
34,700 sq. yds. sheet asphalt, 1½ in. top, 1½ in. binder, 5 in. concrete base	$1.38	$1.33	$1.45	$1.54	$1.47
14,400 sq. yds. sheet asphalt, 1½ in. top, 1½ in. binder, 6 in. concrete base	1.49	1.40	1.55	1.63	1.55
800 sq. yds. vitr. blk., 5 in. concrete base, cement filler, mortar cushion	2.05	2.00	2.25	2.20	2.05
300 sq. yds. vitr. blk., 6 in. concrete base, cement filler, mortar cushion	2.15	2.10	2.30	2.24	2.20
1,000 sq. yds. granite blk. in railway area, 6 in. concrete base, cement filler, sand cushion	3.25	3.25	3.45	3.30	3.30
300 sq. yds. granite blk. in railway area, 6 in. concrete base, cement filler, sand cushion (redressed blk.)	2.30	2.10	2.45	2.50	2.45
3,000 sq. yds. vitr. blk. in railway area, 6 in. concrete base, cement filler, mortar cushion	2.20	2.20	2.40	2.25	2.20
16,900 lin. ft. armored concrete curb and circles	.53	.50	.55	.55	.55
6,900 lin. ft. old stone curb and circles redressed and reset	.35	.35	.40	.40	.35
1,600 sq. yds. vitr. block gutters, 5 in. concrete base, cement filler, mortar cushion	2.04	2.00	2.25	2.23	2.08
1,100 sq. yds. vitr. block gutters, 6 in. concrete base, cement filler, mortar cushion	2.15	2.10	2.33	2.25	2.15
450 sq. yds. wood block liners, 6 in. concrete base, bit. filler, mortar cushion	3.40	3.60	3.55	3.80	3.65
6,700 cu. yds. grading city area	.65	.60	.75	.75	.80
800 cu. yds. grading railway area	.65	.60	.85	.95	.90
10 cu. yds Portland concrete in place	6.00	8.00	5.00	4.00	5.50
199,000 sq. ft. old cobble and gutter stone (purchased by contractor)	.025	.01	.001	.01	.001

Hot Springs, N. C.—Bids desired until Mar. 16 by the Madison County Highway Comn. at Marshall (F. Shelton, Pres.) for grading 6.9 miles of road leading out of Hot Springs, including 73,550 cu. yds. excav. Address J. B. Clingman, Eng., Marshall, N. C.

Greenville, S. C.—Governor Manning signed bill authorizing Greenville County to issue $950,000 bonds for road improvements.

Waycross, Ga.—Bids will be received until Mar 16 by the Mayor and Bd. Aldermen, for constructing approximately 11,000 sq. yds. brick pavement on Carswell Ave., on sand foundation (curbing already laid). A. C. Lowther, City Clk.

Jacksonville, Fla.—Bids desired until March 25 by County Comrs. (E. A. Ricker, Chm.) for hard surfacing with vitr. brick, asphalt macadam, or other suitable material, including curbing, each of the roads or parts of roads as follows: (Length given approximate only). Black Point Rd., 1.25 miles, 15 ft. wide; John Anderson Highway, 7.1 miles, 15 ft. wide; Atlantic Boule., 1.8 miles, 20 ft. wide and 2.4 miles 15 ft. wide; National Highway, 14.3 miles, 15 ft. wide; Kings Rd., 7.4 miles, 15 ft. wide; Lem Turner Rd., 3.6 miles and 2594 ft. respectively, 15 ft. wide; Main St., 1.4 miles, 20 ft. wide; Evergreen Ave., from City Limits to Cemetery, 20 ft. wide; Talleyrand Ave., from City Limits to Ostrich Farm, 20 ft. wide.

Tavares, Fla.—Bids desired until Apr. 15 by County Comrs. at Tavares (H. H. Duncan, Clk.) for constructing a system of roadways requiring approximately 1,091,046 lin. ft. roadway, 329,630 cu. yds. excavation, 1,147,610 sq. yds. pavement, 1554 lbs. deformed steel, 5140 lbs. R. C. steel, 875 ft. 12 to 24-in. drains, 1552 ft. pole line to be moved, 57 bridges to be raised and 301.62 cu. yds. concrete. Bids desired for the following surfacing for roads: Sand clay, shell, modified asphalt, plain macadam, waterbound macadam, macadam with "Roc-Mac" binder, macadam oiled. The J. B. McCrary Co. Engrs., 3d Natl. Bank Bldg., Atlanta, Ga.

Alabama.—Bids desired by County Commissioners for constructing State Aid roads as follows:

Until Mar. 25 at LaFayette, grading and paving part of Welch and State Line Rd. Expenditure, $4,616.

Until Apr. 7 at Aniston, grading, draining and surfacing with macadam or chert part of Piedmont and Jacksonville Rd. Expenditure, $4,616.

Until Apr. 19 at Rockford, grading draining and surfacing with top soil part of Rockford and Kellytown Rd. Expenditure, $4,616. W. S. Keller, State Engr., Montgomery.

Lake Charles, La.—Bids desired until Apr. 6 by E. C. House, Clk. Police Jury, for constructing Highways 5 and 7, requiring approximately the following: Highway No. 5—Clearing 80 acres; grubbing, 600 stations; excavation 80,000 cu. yds.; vitr. pipe, 18 in., 900 lin. ft. Highway No. 7—Clearing 25 acres; grubbing, 400 stations; excavation 48,000 cu. yds.; embankment 5,000 cu. yds.; vitr. pipe, 18 in., 700 lin. ft.

Columbus, Miss.—Press reports state bids received Mar. 22 by Commissioners of Dist. 2, at Court House, Columbus, for constructing approximately 22 miles of road in said district and adjoining districts as follows: Military Rd., 5 miles; Wolf Rd., 2 miles; Aberdeen Rd., 5 miles; Pickensville Rd., 5 miles; Robertson and Gilmer roads, 5 miles. Bids desired for a clay and sand foundation with a Novaculite surfacing material, which is commonly known as Iuka or Tishomingo gravel. Geo. E. Hauser, Engr., Aberdeen.

Louisville, Ky.—Bids desired until Mar. 15 by Bd. Pub. Wks. (R. G. McGrath, Secy.), for paving several alleys.

Bids desired until Mar. 19 by Bd. Pub. Wks. (R. G. McGrath, Secy.) for paving portions of Belleaire, Sutcliffe and Onyx Aves., 33d, Kentucky, 36th and several other streets.

Wickliffe, Ky.—Citizens voted $300,000 bonds for gravel roads in Ballard County.

Barberton, O.—Bids desired until Mar. 22 by Bd. Control, for furnishing material and improving Hopocan Ave., requiring approximately 7552 sq. yds. paving block, 7552 sq. yds. concrete base, 2951 lin. ft. concrete curb and gutter, etc. O. D. Everhard, Dir. Pub. Service.

★**Canton, O.**—Later official reports state bids opened by County Comrs., Feb. 24, for Navarre-Jutus road improvement, 2.49 miles in length, has been rejected and will be readvertised. Work includes 12,496 cu. yds. excav., 21,898 sq. yds. bituminous macadam. Lowest bid, R. C. Roush, Canton, at $24,465, on slag base, slag top course.

★Contract was awarded by County Comrs. (bids opened Feb. 26), for Freeburg Louisville Road Improvement, 2,448 miles to Wm. H. Voght & Sons Co., Massillon, for grout filler concrete curb, concrete base form of construction, cost $48,276.

All bids opened Feb. 26, by County Comrs. (C. L. Stoner, Clk.) for Waco-Mapleton Road, 1,908 miles in length, have been rejected and new bids will be received. Lowest bidder on slag base, stone top, Harry V. Moore, Muncie, Ind., $20,368; lowest on slag base, slag top, $19,073; work includes 6,637 cu. yds. excav., 19,058 sq. yds. bituminous macadam. W. L. Bender, Co. Surveyor.

Cincinnati, O.—Plans and specifications have been approved by County Comrs. for improvement of Loveland and Madeira Road; estimated cost, $34,468.

Bids desired until Noon Mar. 15 by Director Pub. Service (Parke S. Johnson, Secy.) for improving Orland Ave. from Harrison Ave. to its Southern terminus by paving with brick.

Bids desired until Apr. 2 by Bd. County Comrs., for Spec. 739—Repair of Loveland and Maderia Rd. from Subway at B. & O. R. R. to corporation line of Loveland, Symmes Township.

Cleveland, O.—Following are lowest bids for brick paving opened Mar. 3 by Bd. Pub. Service (contractors all of Cleveland): Roehl Bros., for paving W. 6th St., $4,449; W. 49th St., $18,917; Bragdon Ave., $2,333; W. 45th St., $21,532; W. 38th St., $16,264; Irene Ave., $3,616; Trowbridge Ave., $22,072; W. 42nd St., $2,798; Fostoria Court, $625; Fanta Ave., $1,515; Newark Court, $1,305; Peoria Court, $1,005; W. 7th Pl., $1,320; Riely Bros., for paving Clement Ave., $12,139; E. 67th St., $3,898; Classen Ave., $7,934; Cleveland Paving & Constr. Co., for paving Collier Ave., $1,631; Connecticut Ave., $9,747, and A. M. Pejsa Paving Co., for paving Dawn Ave., $1,400; Glade Ave., $1,507, and Dennison Ave., $2,455; Cleveland Trinidad Paving Co., for W. 35th St., $8,261.

Lowest bids also opened Mar. 3 for paving with dressed block Medina stone, on 6-in. concrete base, R. P. Burnett, for St. Clair Ave., No. 1, at $25,635, and St. Clair Ave. No. 2, $63,679; Bently Bros., for E. 40th St., $29,505, and Cleveland Trinidad Paving Co., for Scovill Ave., $27,474.

Cleveland, O.—Bids desired until Mar. 17 by Commissioner Purchases and Supplies, for grading, draining, curbing and paving with brick Browning and Perkins Ave., E. 131st and E. 152d Sts., also repaving with dressed block Medina stone, Ontario St.; and with dressed block Medina stone or creosoted wood block, E. 40th and 24th Sts.

Columbus, O.—Bids desired until Mar. 29 by County Comnrs. (John Scott, Clk.) for $156,000 bonds, issued for the purpose of improving roads as follows: Doherty Rd.; Souder Rd.; Norwich Township Central Rd.; Clarke Rd.

★Items marked thus give the names of parties awarded contracts.

★**Tama, Ia.**—Following are unit prices of 6 lowest bids opened Mar. 3 by City Council for paving from plans of Ætna Eng. Bureau, of Chicago, Ill.—(1) vertical fiber brick, (2) repressed vitr. brick: (a) Thos. Carey & Sons, (1) and (2) $80,824 (awarded contract on vertical fiber brick; (b) Dearborn Constr. Co., Waterloo, (1) and (2) $84,819; (c) C. F. Lytte, Des Moines, (1) and (2) $85,444; (d) Wm. Horriban, (1) $86,872, (2) $84,467; (e) John A. McGarry & Co., Chicago, Ill., (1) $87,254, (2) $88,549; (f) Suchart & Munson, Clinton, (1) $88,545, (2) $86,325.

	*(a)	(b)	(c)	(d)	(e)	(f)
37,000 sq. yds. vertical fiber brick paving	$1.60	$1.70	$1.77	$1.76	$1.765	$1.81
37,000 sq. yds. of repressed vitr. brick paving	1.60	1.70	..	1.695	1.80	1.75
24,500 lin. ft. concrete curb	.43	.42	.39	.395	.38	.39
200 lin. ft. 8 x 4 ft. concrete culvert	12.50	12.50	8.54	10.00	12.00	11.54
40 cu. yds. concrete in headwalls	12.50	9.50	11.55	11.00	11.00	11.50
Tile Pipe Sewer:						
440 lin. ft. 20-in.	1.10	1.15	.95	1.25	1.29	1.15
470 lin. ft. 18-in.	.85	1.00	.80	1.00	1.22	.99
2,405 lin. ft. 12-in.	.50	.60	.55	.90	.96	.59
600 lin. ft. 9-in.	.40	.50	.48	.75	.65	.50
11,000 cu. yds. excav.	.40	.42	.42	.45	.40	.40
6 storm water inlets	8.50	10.00	15.00	15.00	11.00	15.00
26 catchbasins	30.00	30.00	28.50	15.00	38.00	35.00
19 manholes	28.00	30.00	31.25	30.00	35.00	33.00

La Grange, O.—Bids desired until Mar. 22 by Trustees of La Grange Township, La Grange, for macadamizing Sect. 1, La Grange-Carlisle Township Line Rd., 10,823 ft: long, 10 ft. wide.

Mt. Gilead, O.—Bids reported desired until Mar. 19 by County Comnrs. for improving 2.5 miles Mt. Gilead-Delaware Rd. C. O. Higgins, Co. Aud.

Nova, O.—Bids reported desired until Mar. 27 by J. W. Davidson, Clk. Troy Township, for $26,000 road improvement bonds.

Ohio.—Bids desired until Apr. 2 at office of Jas. R. Marker, State Highway Comr., Columbus, for improving Sect. I, Dayton-Troy Rd., Montgomery Co., by constructing bridges and culverts, grading roadway and paving with brick. Length 7834 ft. Cost, $33,310.

★**Painesville, O.**—Contract awarded by Martin A. Tuttle, Dir. Dept. Public Service, Feb. 24, for furnishing material and improving Liberty St., to Gould & Maybach, 823 E. 150th St., Cleveland, at about $35,000. Work includes grading, draining, curbing and paving requiring approximately 10,832 cu. yds. excavation, 17,428 sq. yds. pavement and 10,822 lin. ft. stone curb and headers.

★**Sandusky, O.**—Contract awarded by Bd. Pub. Service Mar. 1 for furnishing crushed stone to macadamize and repair streets during 1915 to Wagner Quarries Co., of Sandusky.

★**Toledo, O.**—Contract for paving Clover St., awarded to Modern Constr. Co., Fremont, at $23,429.

Bids desired until Mar. 30 by County Comrs., for furnishing and delivering all macadam and other materials required in the repair of all improved roads and parts of roads, mentioned in County Surveyor's report of Jan. 28, 1915.

Troy, O.—Bids desired by Henry J. Beck, Dir. Pub. Service until Mar. 17 for improvement of Simpson St., to include: 6964 sq. yds. brick pav.; 2502 lin. ft. cement curb; 516 lin. ft. header curb; 1510 lin. ft. 24-in. sewer; 354 lin. ft. 20-in.; 1164 lin. ft. 18-in.; 450 lin. ft. 15-in.; 1008 lin. ft. 12-in.; 38 c.-i. inlets set complete; 7 manholes complete; estimated cost $18,176; also for improvement of Crawford St. to consist of 2215 sq. yds. brick pav.; 934 lin. ft. cement curb, and 223 lin. ft. header curb; cost $4,445.

Warren, O.—Geo. T. Hecklinger, City Aud., writes that a large amount of paving work contemplated this summer. At present time it is proposed to pave Nile Ave. and W. Market St. with brick, stone and cement curb, concrete and slag foundation.

Youngstown, O.—Bids desired until Mar. 15 by Comrs. Road Dist. No. 1 Frank Agnew, Secy.) for paving, with waterbound slag macadam, West Rd., Boardman Township, a distance of 8493 ft.

★**Flint, Mich.**—Contract awarded Feb. 23 for asphalt plant to Hetherington & Berner, Indianapolis, Ind., at $9,245. D. E. Newcombe, City Clk.

Freeport, Ill.—City Council reported to be considering some new paving work. C. S. Hepner, City Engr.

Moline, Ill.—Bids desired until March 17 by Bd. Local Improv. (Lyle Payton, Secy.) for paving 15th Ave. and 4th St. Pavement Dist., requiring 37,610 sq. yds. brick pavement, with concrete base and asphalt filler and 26,703 ft. concrete curb, and improving 8th St., 936 sq. yds. concrete pavement and 540 ft. concrete curb.

Fond du Lac, Wis.—Bids desired until Mar. 17 by Bd. Pub. Wks. (J. S. McCullough, Chmn.), for paving with reinforced concrete, together with a Portland cement combined curb and gutter, Johnson and Superior Sts., Western and Cottage Aves.

★**Jefferson, Wis.**—Contract was awarded Feb. 20 by Bd. Pub. Wks. to L. A. Larsen of Oshkosh for paving Main, Milwaukee, 1st and Dodge Sts., with brick and concrete.

★**Mount Horeb, Wis.**—Contract for paving in Mount Horeb (bids opened by W. H. Sommers, County Highway Comr., March 3) has been awarded to N. Quinn, of Madison, as follows: 19,300 sq. yds. concrete pavement, one course, 96 cts.; 7,452 lin. ft. curb and gutter, 38 cts.; total, $21,359. Pavement is 7 in. average thick and expansion joints are Baker steel plates with asphaltic felt between (¼ in. thick). About one-third of pavement is reinforced with A. S. & W. Co. No. 26 in. mesh. County will furnish the cement.

New London, Wis.—Bids reported desired until Mar. 16 for constructing 1½ miles road leading into the city. Approximate cost, $14,000. C. J. Thompson, City Clk.

Oshkosh, Wis.—Bids reported desired until Mar. 16 by Bd. Pub. Wks., for grading, curbing and paving portions of various streets.

Sparta, Wis.—Bids reported desired until Mar. 17 by E. G. Kowitz, Chmn. Street Com., for 4333 sq. yds. brick paving.

Wisconsin.—Plans are being prepared and are practically ready for the following improvements under State Aid Law of Wisconsin (A. R. Hirst, State Highway Engr., Madison):

Wood County, Village of Nekoosa, paving Prospect Ave. with 15 ft. concrete, approximately 5650 sq. yds., estimated at about $7,080. Address L. Amundson, County Highway Comr., Grand Rapids, Wis.

Jackson County, City of Black River Falls, paving Main St. and Melrose Road with concrete, 4480 lin. ft. curb, and approximately 9300 sq. yds. paving; estimated cost about $13,000. Address County Highway Comr. or City Clerk, both located at Black River Falls.

Walworth County, City of Delevan, paving five principal streets and some alleys, quantities for which are as follows: 1,662 sq. yds. brick on concrete foundation, 14,700 sq. yds. reinforced concrete pavement, 3,788 sq. yds. plain concrete pavement, 4,323 lin. ft. curb., 910 alleys (type not specified); total cost about $25,000. Bids desired by the City Clerk, at Delavan, or County Highway Comr. H. J. Peters, Elkhorn, Wis.

St. Paul, Minn.—The Council on Mar. 2 ordered the following paving: Creosoted wood blocks Selby Ave., from Victoria St. to Fairview Ave., cost $87,095; Marshall Ave., from Snelling to Cretin Ave., with blocks and brick the rest of the way to the river; cost $142,003; Fairview, from Selby to Marshall Ave., blocks, to cost $4,328. Present roadway's width will be retained.

Bids reported desired until Mar. 15 by August Hohenstein, Purchasing Agent, for grading and improving various streets; also separate bids for approximately 1000 tons limestone dust, 1000 tons 3.8-in. binder stone, 41 cars crushed granite, 13,000 cu. yds. 1½-in. crushed rock, 3000 cu. yds. asphalt sand, 4000 cu. yds. screened sand.

Concordia, Kan.—Geo. C. Gilbert, Co. Clk., writes bids are desired until Mar. 24 for constructing 5 reinforced concrete bridges.

Holton, Kan.—Bids were opened Feb. 26, by City Council, for paving improvements including about 12,950 sq. yds. paving on 5-in. concrete base, and 4,000 lin. ft. combined curb and gutter, from plans of Worley & Black, of Kansas City, Mo., and following are lowest bids received: Elliott & Vance, of Parsons, with block, $1.97; total, $31,713; and same contractors with vit. fiber, $1.79; total, $29,382; for asphaltic pavement, Jas. Stanton, Leavenworth, bid $1,48 per sq. yd. and his total, $24,726; 10 cts. extra to be added for Bermudez or Trinidad asphalt; J. R. Ramsey, Lawrence, Kan., $1.45, total, $25,460; Watts & Amerman, Concordia, $1.48 per sq. yd., total, $25,260; add 6 cts. per sq. yd. for Bermudez or Trinidad asphalt.

Sheridan, Ark.—Comrs. of Grant County at Sheridan, considering construction of about 35 miles of macadam and gravel road. Engineer, Maj. Parks, of Pine Bluff.

Gainesville, Tex.—About $50,000 road bonds have been sold by Cooke County Comrs.

Terrell, Tex.—Bids desired until Mar. 23 by J. Truehart, City Secy., for improving N. Rockwell Ave., from Moore Ave. to Howard St. Bids desired on creosote wooden block, brick pavement, rock asphalt, gravel, bituilthic and entirely graveled roadway; curb and gutter.

Anacortes, Wash.—Contracts are about to be let by City Council for grading, constructing gutters and concrete sidewalks, etc., in Local Improvement Dist. No. 109; cost about $22,558.

Colville, Wash.—Rich. B. Thomas, County Engr., writes that the only paving in prospect this summer is about 2½ miles of the Springdale-Hunter Highway, to be 20 ft. road bed, the cuts to be 24 ft. wide at grade, allowing for 2-ft. side ditches; surfacing to be crushed rock and gravel; work includes approximately 16,550 cu. yds. excav., of which 830 cu. yds. are solid rock and 1935 cu. yds. loose rock. Approximate cost, $9,000.

Davenport, Wash.—Following are 4 lowest bids opened Mar. 2 by County Comrs. for constructing 12.53 miles spread gravel macadam road: Jacobsen-Bade Co., Portland, Ore., $42,534; Spokane Asphalt Macadam Paving Co., Spokane, $44,243; A. H. Zane & Co., North Yakima, $45,424; H. L. Wilson & Co., Walla Walla, $45,424. Guy G. Harvey, Co. Engr.

Ephrata, Wash.—Bids desired by C. T. Sanders, Co. Aud., until Apr. 5 for constructing about 2 miles of water bound macadam, for permanent highway No. 5. E. H. Stradling, Co. Engr.

Seattle, Wash.—Bids reported desired until Mar. 29, by County Comrs. (Byron Phelps, Clk.), for constructing Auburn-Enumclaw Rd., about 20 miles long, and Renton-Issaquah Rd., about 10 miles long. Total probable cost, $155,000.

Bd. Pub. Wks. has voted to pave 19th St. at cost of $23,100.

South Bend, Wash.—County Comnrs. will probably be ready to receive bids latter part of March for constructing Permanent Highway No. 1, "A," consisting of 1½ miles of grading, bridging and water-bound macadam surfacing. Chas. B. Nims, Co. Engr.

Spokane, Wash.—Bids desired until Mar. 25 by the City Council for grading, curbing and paving Hamilton and Fiske Sts. F. K. McBroom, Comr. Pub. Wks.

Contract is about to be let by City Comn. for constructing Spokane-Hilliard Arterial Highway.

Contract is about to be let by Bd. Pub. Wks. for constructing concrete walks on W. 63d St., paving 30th Ave. South, and in Block 59 Denny's Addition.

Washington.—State Legislature has appropriated $2,152,288 and reappropriated $153,640 for construction and maintenance of state highways, and $4,000,000 for construction and maintenance of other permanent highways. These amounts will be expended during the next two years, beginning Apr. 1. In addition there will be expended about $4,000,000 from county funds for roads and bridges. The above does not include any expenditures that may be made within limits of incorporated cities and towns. Address Arthur W. Dean, Ch. Engr. State Highway Comn., Olympia, Wash.

The State Highway Comn. announces following are first roads to be constructed this year: Grading, graveling tucna in Adams County, graveling 2-mile road near Wheeler and extension of road north from Ephrata, in Grant County, and in Kittitas County, Sunset Highway from Easton to Cle Elum, including 200 ft. span over Yakima River and 100 ft. span over Cle Elum River; in Pend d'Oreille County one mile road at Ione and Usk, and 2 mile at Newportin, Yakima County, 2 mile waterbound macadam 10 miles north from North Yakima, and 4 mile of road west of Toppenish.

North Bend, Ore.—Bids reported desired until Mar. 23 for paving Sherman Ave. and Washington St. Bids desired for bitulithic, rock asphalt, sheet asphalt and asphaltic concrete. Address City Engineer.

Oregon.—Bids desired until Mar. 17 by State Highway Comn., Salem, (H. L. Bowlby, Engr.) for constructing Mitchell Point, Section of Columbia Highway, Hood River County.

Bakersfield, Cal.—Bids desired by Bd. Superv. at Bakersfield until Mar. 22 for grading, paving, constructing of culverts, etc., on Div. 8, Sect. 1, Maricopa-Old River Road, a distance of about 8.8 miles. I. L. Miller, Clk.

Long Beach, Cal.—Bids reported desired until Mar. 17 by Bd. Pub. Wks., for grading and paving with hydraulic cement and broken stone concrete base asphalt wearing surface, American Ave., 7th, 8th, 9th and various other streets; also separate bids for cement concrete curbs and cement sidewalks on Anaheim St. and Alamitos Ave. Harry B. Riley, City Clk.

Manhattan Beach, Cal.—Bids desired until 7.30 p. m., Mar. 17, by L. Price, City Clk., for improving 15th St. and 3 alleys, including approximately 66,698 sq. ft. paving with concrete base and oil and screenings top, 11,071 sq. ft. sidewalk, 1191 lin. ft. concrete curb, etc.

★**San Francisco, Cal.**—Contract for paving Portola Drive, awarded by Bd. Public Works to Hiram G. Vaughan, at $46,200.

Ottawa, Ont.—It is proposed to pave Ossington Ave. with Rocmac. F. C. Askwith, City Engr.

Medicine Hat, Alta.—R. B. Pyper, Acting City Engr., writes no bids were opened Feb. 25 for paving Findlay Bridge over Saskatchewan River. These inquiries were only in the nature of a preliminary study of problem to obtain approximate prices on different kinds of paving.

STREET CLEANING AND GARBAGE DISPOSAL.

Items Arranged Geographically

Yonkers, N. Y.—Bids are desired by Michael Walsh, Secy. Bid. Contract and Supply until Mar. 15 for the construction of the proposed incinerator plant; probable cost $100,000. D. F. Fulton City Eng.

Trenton, N. J.—The City Commission rejected bids Feb. 26 to dispose of city garbage.

Norfolk, Va.—Bids desired until Mar. 30 by Bureau Supplies and Accounts, Navy Dept., Washington, D. C., for Sch. 7988—Garbage incinerator for Navy Yard, Norfolk.

Portland, Ore.—It is reported that steps are to be taken immediately toward disposal of $200,000 bonds voted at last election for construction of a municipal garbage incinerator; it will probably be of reinforced concrete.

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Items Arranged Geographically

Hydroelectric—Westfield, Mass.—About 600-hp hydroelectric development proposed in connection with new storage reservoir. J. L. Hyde, Town Engr.

River Improvement—Buffalo, N. Y.—Bd. of Aldermen has voted to issue $130,000 bonds for river improvement.

Dock—Dunkirk, N. Y.—W. H. Shelton, City Engr., writes that bids desired about Apr. 15 for the purchase of bonds to be used for proposed public dock. The intercepting sewer may not be constructed this year.

★**Dredging—Port Chester, N. Y.**—Bids were opened Feb. 23 by Col. W. M. Black, Corps Engrs., U. S. A., New York, for dredging in Port Chester Harbor and contract has been divided between John A. Seely, of 30 Church St., New York, at $8,000, and Morris & Cumings Dredging Co., New York, $18,000.

Beach Protection—Cape May, N. J.—Bids desired until Mar. 22 by Thos. W. Millet, City Recorder, for renewal, repair and additions to boardwalk, beach drive and bulkhead, affording additional protection to beach front, advertised in Engineering Record. Approximate quantities: 5000 piles, 11,000 tons of fill and 2000 cu. yds. of foreign gravel. L. C. Ashburn, Acting Chmn. Com. of Streets & Highways; L. E. Miller, Jr., City Engr.

Dike, Sluice Gates, Etc.—Elizabeth, N. J.—Bids desired until Mar. 18 by Union County Mosquito Extermination Comn., 25 Rahway Ave., Elizabeth, for constructing a mile or more of dike on the Elizabeth Meadows; also constructing sluice gates or tide gates and spillways on said meadows.

Power House, etc., at Dam—Pittsburgh, Pa.—Bids desired until Apr. 5 by Capt. Harold C. Fiske, Corps. Engrs., U. S. A., Pittsburgh, Pa., for building a fireproof power house, furnishing and installing one 115 hp. and one 15 hp. boiler, one steam-driven air compressor and 2 air receivers, piping and accessories and furnishing one feed water heater, one feed water pump and one service water pump at Dam. No. 10, Ohio River, advertised in Engineering Record.

★**Fish Wharves—Washington, D. C.**—Contract awarded Feb. 11, by Comrs. D. C. for constructing wharves to Geo. D. Murray, Inc., Norfolk, Va., cost about $21,000.

Rivers and Harbors—Washington, D. C.—Congress has finally passed the River and Harbor Bill, which provides for a lump sum appropriation of $25,000,000.

Cotton Compress—Jacksonville, Fla.—See "Industrial Plants."

Wharves — Jacksonville, Fla. — Local press reports state bids desired until Mar. 22 by Bd. Port Comrs. (F. Bruce, Ch. Engr.), for constructing timber marginal wharves at Municipal Terminal Docks, requiring about 110,000 sq. ft. work. Amount available $25,000.

★**Drainage Canal—Gonzales, La.**—Contract reported awarded by Comrs. of the New River Drainage Dist., at Gonzales, for digging drainage canal, to the D. B. Gore Co., of Shreveport, at about 6.75 cts. per yard, including 15 per cent commission and cost of equipment. Canal to be approximately 27 miles long and 65 ft. wide.

Steel Gates for Locks—Nashville, Tenn.—Bids desired until Apr. 12 by Maj. H. Burgess, Corps Engrs. U. S. A., Nashville, for construction and erection of steel gates for Locks B and C, Cumberland River, advertised in Engineering Record.

Dredging—Alpha, O.—Bids desired until Mar. 18 by County Comrs. at Xenia (Geo. W. Kendall, Clk.) for excavation of 144,183 cu. yds. earth, all of which is designed as floating dredge work, except about 1,040 cu. yds., which is designed as team work. The work is located at Alpha Station, 12 miles east of Dayton. The work consists of deepening, widening and straightening a stream called Beaver Creek.

★*Items marked thus give the names of parties awarded contracts.*

★**Drain—Walkerville, Mich.**—Contract awarded Mar. 4, for constructing Beaver Drain, containing 230,000 cu. yds. to Hugh Woolman, of Sandusky, Mich., at $13,000. Orley A. Rhodes, Grant, County Drain Comr. for Neuaygo County.

Pier—Chicago, Ill.—See "Public Buildings and Schools."

Pumping Plant-Oquawaka, Ill.—Bids reported desired until Mar. 20 by County Drainage Dist. No. 3 (R. B. Parsons, Secy., First State Bank) for constructing a complete oil or gas driven pumping plant, including machinery for said plant. Two duplicate unit pumps direct-connected with oil or gas engines, having a combined capacity of not less than 16,000 gals. per min. against a maximum static pumping head of 16 ft. complete with suction and discharge piping, etc.

★**Pumping Station for Drainage Work—Quincy, Ill.**—Contract has been awarded by South Quincy Drainage and Levee Dist., to Farrar Pump & Machinery Co., Granite Bldg., St. Louis, Mo., for an electric pumping station, at $23,040.

Ditch—Mankato, Minn.—Bids reported desired until March 25 by County Comrs. for constructing County Ditch No. 36. Probable cost $24,000. C. L. Kennedy, Co. Aud.

Irrigation—Belle Fourche, S. D.—The Spring Creek Valley Irrigation Co. (F. C. Magruder, Engr.) contemplates building the Spring Creek Irrigation Project to irrigate about 14,000 acres of land in Spring Creek Valley. A permit to appropriate 200 cu. ft. per sec. has been asked for. The proposed dam will be 85 ft. high and 1150 ft. long on top, to be constructed of earth, concrete, stone and steel. Capacity of reservoir when filled, 13,600 acre ft.; total length of canal, 40 miles; estimated cost, $400,000.

★**Channels for Drainage Work—Edina, Mo.**—Contract awarded Feb. 18 by Supervisors of Fabius River Drainage Dist., at office of F. H. McCullough, Edina, for constructing channels for Fabius River Drainage Dist., No. 3, Scotland, Knox, Clark and Lewis Counties, to H. K. Johnson, of Kohoko, Mo., at 5.3 cts. per cu. yd. Work includes about 500,000 cu. yds. of channel excav. Engineers, Harman Eng. Co., 144 Fredonia Ave., Peoria.

★**Drainage—Bay City, Tex.**—Contract awarded Mar. 6, by County Drainage Dist. No. 5, to J. P. Arpin Dredging Co., Houston, for constructing drainage system as follows: 255,246 cu. yds. ditch excav., 14.95 cts.; 400 cu. yds. excav. for culverts, 35 cts.; 600 ft. place and haul corrugated culverts, 20 cts.; 400 cu. yds. replacing dirt, 25 cts.; fencing per 100 ft. for moving and rebuilding, 75 cts.; total $41,129. Howard Kenyon, Houston, bid for this work $42,365.

Dock — Hoquiam, Wash. — Frank H. Lamb, Pres. Gray's Harbor Port Comn., writes that bids will probably be received the latter part of March for proposed dock. It will be 150 x 1250 ft., and cost about $75,000. Engineer, E. G. Hunt, of Aberdeen.

★**Irrigation—North Yakima, Wash.**—Bids were opened by County Comrs., Feb. 26, for constructing 21 miles open ditches for irrigation system in Dist. No. 2, Schedules 1 and 2, and awarded as follows: (J. O. Greenway, Drainage Engr., Sunnyside):

★Schedule 1 awarded to Carlson Chindahl Co., Fernwell Bldg., Spokane, as follows: (a) for payment in cash, (b) payment to be made in bonds: 543,678 cu. yds. excav., (a) 11.5 cts.; (b) 12 cts.; 29 pile bridges, 97.15 M ft., (a) $30, (b) $31.50; 290 piles 24.65 M ft., (a) $20, (b) $21; driving piles, ea., (a) $4.80, (b) $5.05; farm bridges, 104.310 M ft., (a) $30, (b) $31.50; Snipes Mt. Culvert (lump sum), (a) $300, (b) $300; 6.3 M ft. waste water inlets, (a) $30, (b) $31.50; total (a) $70,941, (b) $74,068.

★Schedule 2 awarded to Mitchell Bros., Spokane, as follows: (a) for payment in cash, (b) payment to be made in bonds: Pipe, 1413 ft. 18-in., (a) $1.25, (b) $1.30; 553 ft. 15-in., (a) 85 cts., (b) 90 cts.; 5019 ft. 12-in., (a) 70 cts., (b) 73 cts.; 11,051 ft. 10-in., (a) 60 cts., (b) 62 cts.; 10,049 ft. 8-in., (a) 50 cts., (b) 53 cts.; 3,619 ft. 6-in., (a) 40 cts., (b) 42 cts.; 8 outlet structures, 2.312 M ft., (a) $45, (b) $47.50; 18 manholes, 4 angle boxes, 10 M ft., (a) $50, (b) $52.50; 10 surface inlets, (a) $8, (b) $8.40; 16 8-in. irrigation inlets, (a) $14.35, (b) $15; 8 10-in. irrigation inlets, (a) $15, (b) $15.75; 8 12-in. irrigation inlets, (a)) $16, (b) $16.80; gravel in place per cu. yd., (a) $1.50, (b) $1.50; cradles in place per M ft., (a) $40, (b) $40; total, (a) $20,014, (b) $20,915.

Dykes—South Bend, Wash.—Bids reported desired until Mar. 30 by Commissioners of Diking Dist. No. 2, South Bend, (H. A. Bibbs, Engr.), for constructing a system of dykes.

Irrigation—Echo, Ore.—It is reported that Asa B. Thomson, director of the Teel Irrigation Dist., will receive bids for reclamation of 19,000 acres of fertile land near Echo, to cost approximately $600,000; water to be taken from Camas Creek.

★**Wharf-Richmond, Cal.**—Bids were opened Mar. 1 for constructing reinforced concrete wharf No. 1, from plans of P. A. Haviland, of Haviland & Tibbetts, Alaska Commercial Bldg., San Francisco, and contract has been awarded to Healy-Tibbitts Constr. Co., San Francisco. Their bid in detail is as follows:

Dredged Channel for Rock Fill....	$4,000
60,000 tons Rock Embankment....	.46
Substructure:	
47,900 lin. ft. Reinforced Concrete Piles	$1.20
Alternate Socket Piles:	
19,000 lin. ft. Reinf. Conc. Section	1.95
29,500 lin. ft. Timber	.25
6,900 lin. ft. Timber Piles.....	.25
Superstructure (lump sum)..	$121,539
Total	212,341
Alternate Total.....	199,289

★**Irrigation—Payson City, Utah.**—Contract awarded by U. S. Reclamation Service to the Reynolds-Ely Constr. Co., of Springville, Utah, for construction of Schedule 4 of Highline Canal, Strawberry Valley project, near Payson City, at $82,625 (bids opened by U. S. Reclamation Service at Provo, Feb. 3). For unit prices see Engineering Record of Feb. 20.

ELECTRIC RAILWAYS.

Items Arranged Geographically

★**Brooklyn, N. Y.**—The Public Service Comn. for the First Dist. New York has approved recommendation of the New York Municipal Ry. Cor. that contract for constructing 7 stations on the Fulton St. Elevated R. R. in Brooklyn be awarded to John Thatcher & Son, 60 Park Ave., Brooklyn, at $258,664. The contractor is to build the stations in connection with the third tracking of the Fulton St. line between Nostrand Ave. and Sackman St.

★The Public Service Comn. for the First Dist. has approved recommendation of New York Municipal Ry. Cor. to award contract for supplying steel for Sect. 2 of third tracking of Broadway elevated railroad in Brooklyn, from Myrtle Ave. to Aberdeen St., to Lewis F. Shoemaker & Co., 45 Bway., New York, at $37.20 per ton; total cost, $279,000.

The Public Service Comn. on Mar. 9 approved award of contract for construction of first section of the Brooklyn Rapid Transit elevated extension on Jamaica Ave. from Crescent St. to Myrtle Ave., to Post & McCord, Inc., 101 Park Ave., New York, at $734,540. The road will be two tracked for 3½ miles.

Brooklyn, N. Y.—See "Electric Railways."

Hazleton, Pa.—Wilkesbarre & Hazleton Ry. Co. contemplates spending about $600,000 for double-tracking entire system.

Durham, N. C.—Lamance, Durham & Orange Ry. & Electric Co. incorporated to construct 49-mile electric railway from Ossipee to Durham. Junius Harden, Burlington, said to be interested.

Louisville, Ky.—Bids desired until Mar. 16 by Bd. Pub. Wks. (Roger G. McGrath, Secy.) for franchise to construct and operate an electric railway on 27th and Madison Sts. for a period of 20 yrs.

Findlay, O.—Toledo, Bowling Green Southern Traction Co. contempates spending about $116,000 on improvements to its line in Findlay.

Hamilton, O.—Richwood Hamilton Traction Co. incorporated to construct an electric railway between Richwood and Hamilton. Capital $10,000. Eugene Purtelle said to be interested.

Toronto, Ont.—About 98 miles track is to be constructed by Hydro Electric Power Co.

RAILROADS.

Items Arranged Geographically

Reading, Pa.—In a report to Council, E. B. Ulrich, City Engr., and E. L. Nuebling, Water Engr., outline their plans for elimination of Reading Ry. grade crossings along 7th St. Four subways are suggested at Penn, Cherry, Franklin and Chestnut Sts.

★**West Palm Beach, Fla.**—Contract reported awarded by the Palm Beach & Everglades R. R. Co., to Everglades Constr. Co., for steam railway from West Palm Beach to Lake Hicpochee.

Cincinnati, O.—The City's portion of the cost of eliminating about 27 grade crossings over the C., H. and D. will approximate $2,000,000, according to a report submitted to Council by City Engineer Krug.

★**Chicago, Ill.**—Contract has been awarded by the Pennsylvania Co. to P. T. Clifford & Son, of Valparaiso, Ind., for grading property lying between 12th and Polk Sts., west of Chicago River at Chicago. This is the first contract to be let in connection with the vast terminal improvements of the Pennsylvania Company at this point. The depression of the property over the territory mentioned will amount to about 6 ft.

PUBLIC BUILDINGS AND SCHOOLS.

Items Arranged Geographically

★**Athol, Mass.**—Contract for erecting 2 wings to high school awarded to Leland B. Taylor, Athol, at about $55,000.

Swansea, Mass.—M. O. Wood, Town Clk. writes that the proposed high school will not be erected until the Spring of 1916. No plans yet prepared.

Bristol, Conn.—Bids reported desired until Mar. 15 by Newell Jennings, 195 Main St., for erecting a 2-story, 116 x 124 ft., school on Maple St. for Dist. No. 1. Probable cost $85,000. Walter P. Crabtree, Archt., 272 Main St., New Britain.

Hamden, Conn.—Bids desired until Mar. 25 by Almon J. Deane, Secy. Com. on School Bldgs. for erecting a school on Putnam Ave., village of Whitneyville, town of Hamden, including heating, plumbing, etc. Loth & Doolittle. Archts., First Natl. Bank Bldg., New Haven.

Hamden, Conn.—Plans being prepared for a school to be erected in Whitneyville for the town of Hamden, and to cost $36,000. Saml. Flight, Chmn. Bldg. Com.

Waterbury, Conn.—Plans have been prepared by Louis H. Walsh, of Waterbury, for erection of a parochial school for St. Margaret's Congregation; cost $40,000. Bids wanted at once on masonry and carpenter work. Heating, plumbing, electric work and painting later.

The House has passed a bill authorizing $200,000 bond issue for elementary school also a $225,000 bond issue for erecting high school in Waterbury.

Albany, N. Y.—Bids desired until Mar. 15 by Bd. Contract and Supply (Isidore Wachsman, Secy.), for constructing a music pavilion in Swinburne Park. Bide desired for general construction, including masonry, structural steel, carpentry, roofing, plumbing, electric wiring and fixtures.

★**Bayside, L. I., N. Y.**—Contract awarded by C. B. J. Snyder, Supt. School Bldgs., New York (on bids opened Mar. 8) to Frank J. Felgenhauer Co., Inc., 4 Court Sq., Brooklyn, for erecting School 41 at Crocheron and Franklin Aves., Bayside, at $81,879. Contract for plumbing and drainage of same to John J. Kenny Co., at $6,545.

Clayville, N. Y.—Bids reported desired until Mar. 16 by J. B. Polly, Clk. Bd. Educ. School Dist. No. 4, town of Paris, for masonry, structural steel, carpentry, sheet metal work, plumbing, heating and ventilating, electric wiring and sewage disposal, etc., for new school in said district. Walter G. Frank, Archt., Clarendon Bldg, Utica.

Delhi, N. Y.—Bids desired until Mar. 26 by Wm. H. Maynard, Pres. Bd. Control, State School of Agriculture and Domestic Science, Delhi, for erecting a dairy building, including heating, plumbing, etc., advertised in Engineering Record. Lewis F. Pilcher, State Archt., Albany.

Kings Park, N. Y.—Bids desired until Mar. 18 by State Hospital Comn., Albany (E. S. Elwood, Secy.), for additional accommodations for chronic patients, construction, heating, plumbing and drainage and electric work at Kings Park State Hospital, Kings Park. Lewis F. Pilcher, State Archt., Albany.

New Rochelle, N. Y.—Bids reported desired until Mar. 15 by Edw. F. Stevens, 9 Park St., Boston, Mass. and Butler & Rodman, 16 E. 23d St., New York City, Assoc. Archts., for additions and alterations to service building and power house for New Rochelle Hospital Association, Guion Pl., New Rochelle.

New York, N. Y.—Sub-bids desired by John J. Hearn Constr. Co., 69 W. 46th Street, on brick, concrete, steel granite; sandstone or concrete stone; plumbing bronze work, on the 6 superstructures for buildings at Kensico reservoir; (bids opened by Water Bd., N. Y. City, Mar. 23).

Reported additional ground has been purchased in East 78th St., on which the Finch School for Girls (Mrs. J. G. Cosgrave, headmaster), 61 East 77th St., intends erecting a 10-story addition according to plans by Harde & Short, 3 W. 29th St.

Randalls Island, N. Y.—Bids desired until Mar. 18 by Dept. Pub. Charities, New York City (John A. Kingsbury, Comr.), for furnishing material and erecting fireproof balconies and awnings for the Reception Hospital, Randalls Island. Security $6,000.

Rochester, N. Y.—Bids desired until Mar. 25 by Bd. Educ. (J. S. Mullan, Secy.) for erecting an addition to Whitney School, Orange and Saxton Sts. Edwin S. Gordon, Archt., Bd. Educ.

Millville, N. J.—Reported bids desired by Bd. Educ. for erecting 2-story and basement 120 x 166 ft. brick and stone school to cost $70,000. Arnold Moses, 136 S. 4th St., Philadelphia, Pa., Archt.

Newark, N. J.—State Senate has passed a bill authorizing this city to erect a memorial building in conjunction with the proposed celebration of the city's 250th anniversary next year.

Woodbury, N. J.—Reported bids desired by Bd. Educ. for erecting 2-story brick school. Chas. R. Peddie, Archt., 136 S. 4th St., Philadelphia.

Canton, Pa.—Plans being prepared by J. Mills Platt, Cutter Bldg., Rochester, N. Y., for high school; cost reported to be $28,000.

Carnegie, Pa.—Erection of Municipal Hall, costing $30,000 contemplated.

Coatesville, Pa.—Bids desired until Mar. 22 by Bd. Educ. (Dr. H. E. Williams, Secy.) for furnishing material and erecting a high school on Lincoln Highway; also separately for ventilating, heating, plumbing, electric light wiring, etc. Clyde S. Adams, Archt., 1509 Arch St., Philadelphia.

Harrisburg, Pa.—Reported bids desired June 1 by School Bd. for erecting school at 5th and Mahantongo Sts., to cost $75,000.

Middleburg, Pa.—County Comrs. considering erecting an addition to court house costing $25,000.

Monongahela, Pa.—At recent meeting of Council resolution was passed to issue $45,000 bonds—$25,000 for municipal building and $20,000 for sewer system improvements and extensions.

Pittsburgh, Pa.—Plans being prepared by Geo. S. Orth & Bros., Farmers Bank Bldg., for the Homewood Brighton high school; cost reported to be about $265,000.

Reading, Pa.—Bids desired until Mar. 22 by D. K. Hoch, Co. Controller, for erecting an infirmary for the Berks County Almshouse.

Rochester, Pa.—Bids desired until Mar. 26 by Directors of School Dist., Geo. H. Karcher, Secy., 214 W. Washington St., for erecting a high school at Adams and Ohio Sts.; also separately for plumbing and electrical work. U. J. L. Peoples, Archt., Vandergrift Bldg., Pittsburgh.

South Bethlehem, Pa.—Bd. Educ. has accepted plans for a high school to cost $185,000.

★**West Philadelphia (P. O. Philadelphia), Pa.**—Contract reported awarded to Irwin & Leighton, Philadelphia, for erecting a 3-story and basement hospital brick, stone, concrete and steel for the Maternity Hospital of the Univ. of Pennsylvania. Brockie & Hastings, Archts., Philadelphia.

★**Easton, Md.**—Contract awarded Feb. 20 by Directors Emergency Hospital (Hampton Howell, Secy.) to W. A. Richman, Moorestown, N. J., at $39,000, for erecting a 3-story brick hospital about 100 x 140 ft., from plans of Guy King & Co., 1513 Walnut St., Philadelphia, Pa. Next 3 lowest bids: J. J. Robinson Co., Baltimore, $40,700; Smith Hardican Co., Philadelphia, $40,967; W. R. Dougherty, Philadelphia, Pa., $42,889.

Ridgeland, S. C.—Bids desired until Apr. 6 by County Comrs. (J. E. Gill, Superv.), for erecting courthouse and jail buildings. Wm. A. Edwards, Archt., Candler Bldg., Atlanta, Ga.

Conyers, Ga.—Citizens voted in favor of issuing $30,000 bonds for erecting a school. Plans completed by W. A. Edwards, Atlanta.

Collinston, La.—Parish School Bd. at Bastrop has sold $95,000 bonds for erecting a school here.

New Orleans, La.—Following are four lowest of bids received and opened Feb. 27 by Bureau of Yards & Docks, Washington, D. C., for making repairs to buildings at U. S. Naval Station, New Orleans: C. O. Eure, Hattiesburg, Miss., $28,659; Newport Contr. & Eng. Co., Newport News, Va., $29,605; Grohne Contr. Co., Joliet, Ill., $31,890; Henry Monk, Pensacola, Fla., $36,624.

Camden, Tenn.—Official reports state bids will be opened Mar. 29 by W. D. Cooper, Chmn. Bldg. Com., for erecting a courthouse. Edw. Dougherty, Archt., Candler Bldg., Atlanta, Ga.

Nashville, Tenn.—At recent meeting citizens voted in favor of issuing $625,000 school bonds.

★**Louisville, Ky.**—Contract for erecting the Emmet Field School awarded to Geo. H. Rommel & Co. at $62,744, heating and ventilating to F. H. Meyer & Co. at $11,388.

Plans for 2-story brick school on Market St. for St. Patrick's Church completed; cost $40,000.

Alliance, O.—Following are four lowest bids received and opened March 1 by Superv. Archt., Washington, D. C., for constructing U. S. Post Office at Alliance: (a) limestone; (b) sandstone: W. H. Fissell & Co., New York, N. Y. (a) $84,900; Chas. W. Gindele Co., Chicago, Ill., (a) $84,000; (b) $84,600; F. F. Schellenberg & Co., Pittsburgh, Pa., (a) $82,000; (b) $83,000; E. P. Abbott Constr. Co., New York (a) $77,500; (b) $77,950; R. S. Moore, Lafayette, Ind. (b) $86,349.

Cambridge, O.—Bids desired until Mar. 31 by Bd. Educ. (C. D. Dugan, Clk.) for erecting 2 grade schools. J. F. Orr, Archt., Central National Bank Bldg.

Canton, O.—Citizens voted Mar. 2, to issue $250,000 bonds for erecting grade schools. Wm. C. Lane, Clk. Bd. of Educ.

Cincinnati, O.—Bids desired until Apr. 12 by Bd. Educ. (C. W. Handman, Bus. Dir., 511 W. Court St.) for furnishing material and erecting Warsaw School, Glenway and Sunset Aves. Bids for labor and material must be stated separately. Bids desired as a whole or separate for the following: Excavations, footing,

★Items marked thus give the names of parties awarded contracts.

stone masonry; reinforced concrete and cement work; brick work and hollow tile portions; cut stone work; ornamental terra cotta; carpentry; structural and ornamental steel and iron work; sheet metal work and roofing; marble and alberene work; plumbing and gas fitting; electrical work; ventilating and heating; temperature regulation; vacuum cleaner, etc.

Edinburg (P. O. New Milford), O.—Bids desired until Apr. 6 by Bd. Educ., Edinburg Township, Edinburg (F. E. Kibler, Clk., New Milford, R. F. D. 18) for furnishing material and erecting a 6 or 8-room brick and fireproof school. Kling & Zenk, Archts., Davis Block, Youngstown.

Fostoria, O.—High School bonds amounting to $150,000 have been sold.

Minerva, O.—A. Dietrich, Clk. Bd. of Educ. writes that bids are desired until about Apr. 30, for erecting 3-story brick and stone fireproof high school 120 x 90 ft., to cost about $50,000. Archts. Howard & Merriam, of Columbus.

Plymouth, O.—School Bd. has decided to erect a school building on the car line.

★**Rittman, O.**—Contract awarded by Bd. of Educ. Mar. 2, for erecting school to Foraker Bros., Barberton, at $35.741. Next 3 lowest bids: E. Converse, Massillon, $36,991; W. Kreighbaum, Barberton, $38,160; Harbough Constr. Co., Akron, $43,900. Architect, National Eng. Co., Marshall Bldg., Cleveland.

St. Marys, O.—Bids reported desired until Mar. 23 by Bd. Educ. (F. D. Ausman, Clk.) for erecting an 8-room fireproof school and a 4-room composite school. Marriatt, Allen & Hall, Archts., 20 E. Broad St., Columbus.

Toledo, O.—The Council has accepted the offer of the Carnegie Corporation of New York to erect four branch libraries here costing $125,000.

Tontogany, O.—Bids desired until Apr. 2 by W. E. Burgoon, Clk. Bd. Educ., Washington Township, Rural School Dist., for furnishing material and erect- a fireproof consolidated high and grade school. Bids desired as a whole or separately for construction; ventilating and heating; plumbing, gas-fitting and sewerage. Howard & Merriam, Archts., 8 E. Broad St., Columbus. Cost reported at $40,000.

Hammond, Ind.—Bid desired until Mar. 17 by Bd. Pub. Wks. (Nicholas Lauer, Chmn.) for erecting a bath house, including plumbing, sewering, steam fitting, electric wiring, etc. J. T. Hutton & Son, Archt., Hammond Bldg.

Duluth, Minn.—Schoor bonds amounting to $100,000 have been sold.

Chicago, Ill.—W. O. Johnson, Secy. Harbor and Subway Comn., writes that plans are now being prepared for concert and dance hall, rest and play rooms, which will finish construction of recreation part of pier, and contract for this section of work will be let in about 6 weeks.

Contract has been awarded by Harbor and Subway Comn. (W. O. Johnson, Secy.) for construction of the Terminal Building on Pier No. 2, Harbor Dist. No. 1, to John Griffiths & Son., at $129,436. Next 3 lowest bids: John Griffiths & Son Co., $129,436; Blome Sinek, $129,820; E. L. Scheidenhelm, $136,400.

W. O. Johnson, Secy. Harbor and Subway Comn., writes bids for recreation end of pier will be received in about 3 weeks. The plans for the electrical installation will be ready about the same time.

Wyocena, Wis.—Bids desired until Mar. 23 at office of County Clerk, Portage, for erecting a poor house and central heating plant on farm of Asylum for Chronic Insane at Wyocena. Allan D. Conover, Archt., 26 Tenney Blk., Madison.

Ames, Ia.—Bids desired by A. B. Maxwell, City Clk., until Apr. 5 for erecting a 2-story brick and stone city hall, 73 x 84 ft., to cost $45,000. Archts. Liebbe, Nourse & Rasmussen, of Des Moines.

Cherokee, Ia.—Citizens voted in favor of issuing $100,000 bonds to erect a high school.

Fremont,. Ia.—Citizens of the Independent School Dist. voted in favor of issuing $30,0000 bonds to erect a school.

Graceville, Minn.—Bids desired until Mar. 20 by the Library Bd., for erecting a 1-story and basement Carnegie Library. F. H. Ellerbee, Archt., Endicott Bldg., St. Paul.

★**Chanute, Kan.**—Contract for erecting U. S. Post Office awarded to Mayben & Freuchtel, Gadsden, Ala., at $51,630.

★**Girard, Kan.**—Contract awarded Mar. 1, for erecting high and 2 ward schools from plans of J. H. Felt & Co., Kansas City, Mo., to A. S. McPherson, Arkansas City, Kan.; Wm. Granthan, Clk. Bd. of Educ.

Winfield, Kan.—Bids reported desired until Mar. 25 by W. Mampe, Archt., Beacon Bldg., Wichita, for erecting a 4-story and basement, 60x175 ft. college for St. John's College, Winfield.

Medina, N. D.—Bids desired March 29 by Wm. F. Stege, Clk. Guilford School Dist. No. 3, for erecting a 2-story and basement brick school, including complete mechanical equipment. Gilbert R. Horton, Citizens' Natl. Bank Bldg., Jamestown, Archt.

Pierre, S. D.—Bids desired until Mar. 30 by Cato Sells, Comr. Indian Affairs, Washington, D. C., for furnishing material and erecting a brick mess hall at Pierre Indian School, Pierre. For further information apply to Superintendent of Indian School, Pierre.

Malta, Mont.—Bids desired until Mar. 20 by I. Murphy, Clk. Bd. Trus., School Dist. No. 14, for erecting an 8-room school. Link & Haire, Archts., Helena.

Miles City, Mont.—Following are lowest bids opened Feb. 27 by U. S. Superv. Archt., Washington, D. C., for erecting Post Office: (a) limestone; (b) sandstone; (1) stone faced; (2) brick faced: Hiram-Lloyd Bldg. & Const. Co., St. Louis, Mo., (a-1) $92,517; (b-1) $98,517; (a-2) $85,517; (b-2) $89,517; Gray Constr. Co., Watertown, S. D. (a-1) $94,177 (a-2) $89,302; (b-2) $96,487; Wm. O'Neil & Son Co., Faribault, Minn. (a-1) $94,785; (a-2) $92,285; Campbell Bldg. Co., of Utah, Salt Lake City, Utah (a-1) $96,938; Frank L. Johnson & Co., Duluth, Minn. (b-1) $103,-946; (b-2) $95,496; Olson & Johnson Co., Missoula, Mont. (b-2) $103,885; Sound Const & Eng. Co., Seattle Wash. (b-1) $101,693; (b-2) $94,548; John Lauritzen, Fergus Falls, Minn. (a-2) $91,990.

Hot Springs, Ark.—Bids desired until Mar. 20 by Constructing Quartermaster, for constructing hospital corps barracks, diet kitchen and storehouse at Army and Navy General Hospital.

Galveston, Tex.—Reported bids about to be asked by Bd. Educ. for erecting addition to Ball High School. A. J. Bellis, Archt.

San Antonio, Tex.—Reported bids desired by Paul Scholz, Bus. Agent, School Bd. for erecting 8 room building at No. 9 School on Lopez St. and a 4-room building on Hunstock St.

Worden, Wash.—Bids reported desired about Mar. 27 by Clerk School Dist. No. 118, for erecting a 2-story, reinforced concrete school. Sweat & Diamond, Archt., Fernwell Bldg., Spokane.

Auburn, Cal.—Reported bids desired by Bd. School Trus. for erecting the grammar school for which the citizens recently voted to issue $40,000 bonds.

Los Angeles, Cal.—Plans being prepared by Norman F. Marsh, Los Angeles, for a group of high school buildings to be erected at 38th St. and Hooper Ave. to cost $200,000.

Reported competitive plans will be received until Mar. 18 by Bd. Educ. (Wm. A. Sheldon, Secy.) for school on 14th St., cost not to exceed $100,000; school on Manchester Ave., cost $25,000, and on Micheltoreno St., cost $25,000.

San Diego, Cal.—John D. Spreckles has made an offer to the Mayor to erect a new city hall at Bway. and Front St. to cost $500,000.

Douglas, Ariz.—Reported bids desired in April for $90,000 school building bonds. Address Bd. Educ.

Tuba, Ariz.—Bids desired until Apr. 5 by Cato Sells, Comr. Indian Affairs, Washington, D. C., for erecting an addition to stone dormitory, Western Navajo School, Arizona. For further information apply to Walter Runke, Supt. School, Tuba.

Cochrane, Ont.—Bids desired until Mr. 20 by W. D. Douglas, Secy., for erecting an 8-room school, solid brick with stone trimmings, also separately for steam heating, plumbing and wiring. Angus & Angus, archts., Angus Blk., North Bay.

British Columbia.—Following appropriations made by Legislature at Victoria: Court House New Westminster, $49,000; a grant of $175,000 for improvements at Univ. of British Columbia; road, bridges, streets and wharves in Kingsbury, $83,500; Caribo Dist., $123,000; Skeena Dist., $176,000; general bridges, $500,000.

PRIVATE BUILDINGS.

Items Arranged Geographically

Portland, Me.—Plans being prepared for an apartment house, probably 10 stories high, which Adam P. Leighton, 21 Exchange St., contemplated erecting at State and Congress Sts.

Springfield, Mass.—Plans being prepared by Hoggson Bros., New York, for a 10-story office building to be erected at Harrison Ave. and Main St. for the Third Natl. Bank, cost about $600,000.

Providence, R. I.—Bide reported desired until Mar. 15 by Geo. F. Newton, Archt., 6 Beacon St., Boston, Mass., for erecting a 1-story, 50x130 ft. edifice for Plymouth Church.

Middletown, Conn.—Plans completed by Mowbray & Uffinger, New York, for 5 story brick building to be erected on Main St. for the Central Natl. Bank.

★**New Britain, Conn.**—Contract for erecting theatre on Main St. for Mr. Isadore and Rebecca Simons awarded to Thos. W. Crowe, New Britain; cost $75,000.

Brooklyn, N. Y.—Plans being prepared by Albert Ullrich, 367 Fulton St., for a brick, steel and reinforced concrete fireproof office building and pasteurizing plant to be erected at Dean St. and 3d Ave. for R. F. Stevens Co. Cost $120,000.

Plans filed for a six story brick tenement to be erected at Rodney and S. 4th Sts. for Glenfor Realty Co.; cost $55,000. Chas. M. Straub, Archt., 143 4th Ave., New York.

Plans prepared by Thos. Lamb, 644 8th Ave., New York, for a brick and terra cotta theatre to be erected at 5th Ave. and 43d St. for the Pioneer Theatre Co. and to cost $200,000.

Buffalo, N. Y.—Plans being prepared by Lansing, Bley & Lyman, Prudential Bldg., for a 2-story 150 ft. square building, brick, structural iron and composition roof, to be erected on Main and Utica Sts. at a cost of $100,000 for Robt. W. Pomeroy.

Reported bids desired by Bldg. Com. of the Knights of Columbus (Orson E. Yeager, Chmn.) for erecting building on Delaware Ave. and Virginia St. to cost $100,000.

Long Island City, L. I., N. Y.—Plans being prepared for a 4 story fireproof apartment house which Robt. E. Adolf, Jamaica, intends erecting on Union St., at a cost of $100,000.

New York, N. Y.—Plans filed for following buildings: 12 story brick fireproof store and factory to be erected at 44 E. 25th St. for John M. Slattery Bldg. & Constr. Co.; cost $200,000. Schwartz & Gross, Archts., 347 5th Ave. Three 5 story brick nonfireproof apartment house at Northern Ave. 178th and 179th Sts. for Dayton Improv. Co.; cost $225,000; Saml. Sass, 32 Union Sq., Archt. 5 story brick tenement at Vermilyea Ave. and 211th St. for Aldus Constr. Co., cost $90,000; Kreymborg Archt. Co., 1029 E. 163d St., Archts. 9 story brick fireproof tenement at 149 E. 40th St., for 149 E. 40th St. Corporation, cost $125,000; Robt. T. Lyons, Inc., Archt. 110 W. 40th St.; 5 story brick tenement Crotona Ave. and 170th St. for Jos. Sonson Co., cost $60,000; John P. Boyland, Fordham Road and Webster Ave., archt. Two 5 story brick tenements at Briggs Ave. and 199th St. for Danl. Hanlihan, cost $110,-000; Tremont Architectural Co., 401 Tremont Ave. Two 5 story brick tenements at Creston Ave. and Fordham Road, for Henry F. A. Wolf Co., cost $110,000; Tremont Architectural Co., 401 Tremont Ave. 5 story brick tenements at Prospect and Tremont Aves. for Morris Silverman, cost $50,000; Tremont Architectural Co., 401 Tremont Ave., Archt. 5 story brick tenement at Crotona Park North and Prospect Ave. for Freown Co., Inc., cost $50,000; Geo. F. Pelham, Archt., 30 E. 40th St.

★Contract for foundation work for building at 438 E. 91st St., for Wm. F. Cunningham, awarded to Underpinning & Foundation Co., 290 Bway., and will consist of installation of standard Hercules steel piles. John P. Boyland, Archt., 2526 Webster Ave.

★**Jersey City, N. J.**—Contract for all concrete and waterproofing at No. 41 Sussex St. for Keystone Churning Co. awarded to Turner Constr. Co., New York.

★Contract awarded to Stillman, Delahanty Ferris Co., 26 Exchange Pl., for all excavation and pile work on the building at First St. for the Great Atlantic Tea Co.

Newark, N. J.—Apfelbaum & Apfelbaum, Inc., 800 Broad St. propose erecting at 894 to 900 Broad St. a market house, concrete fireproof construction.

Allentown, Pa.—Lowest bid received for erecting St. James Reformed Church submitted by Ochs Constr. Co. at $41,-434. A. A. Richter, 31 N. 6th St. Archt.

Pittsburgh, Pa.—The Syria Improv. Assoc. reported receiving bids until Apr. 1 for erecting a temple in Schenley Farms Dist.; cost reported at $400,000. Huehl, Schmid & Holme, Archts., Chicago, Ill., and Chas. J. Rieger, 421 Wood St., Assoc. Archts.

Reported plans revised and bids desired for erecting 2 story brick, stone, terra cotta and concrete 100 x 131 ft. automobile service building for Henry A. Loughlin. Archt., Chas. E. Oelschlager, Pittsburg.

Radnor, Pa.—Reported plans about completed by Chas. A. Platt, 11 E. 24th St., New York, N. Y., for 2½ story stone and plaster residence to be erected for A. J. Drexel Paul at a cost of $75,000.

South Bethlehem, Pa.—Wendic Lutheran Church contemplates erecting a $40,-000 edifice.

Washington, Pa.—Reported bids desired Mar. 17 by Masonic Temple Assoc. for erecting a 4-story brick temple on W. Wheeling St. and Brownson Ave. John W. Vester, Archa., Washington, Pa.

Warren, Pa.—Members of Swedish Lutheran Church propose erecting a $30,-000 edifice to replace the building destroyed by fire.

Baltimore, Md.—Plans being prepared by Ellicott & Emmart, Union Trust Bldg. for 8 story building to be erected at Charles and Saratoga Sts.

Norfolk, Va.—Plans prepared and, it is reported, bids desired by Mitchell & Wilcox, Archts., Norfolk, for erecting the Sunday school building for the Epworth M. E. Church to cost $25,000.

Huntington, W. Va.—Ohio Valley Electric Ry. Co. (H. S. Newton, Mgr.) reported planning erection of terminal station costing $25,000.

★**Alexandria, La.**—Contract for erecting 6 story bank and office building at 3d and Johnston Sts. for the Commercial Bank & Trust Co. awarded to Nicol Langford & Johnston, of Louisville, Ky. Cost about $120,000. W. L. Stevens, New Orleans, Archt.

Canton, O.—Bids reported desired until Mar. 15 by E. E. Pruitt & Co., Archt., Hartman Bldg., Columbus and Dueber Ave. M. E. Church (W. O. Hawkins, Pastor, 411 Dueber Ave., Canton), for erecting a 1-story and basement, 76x120 ft. Sunday School and Church. Probable cost $40,000.

Dayton, O.—Plans being prepared by Schenck & Williams, 591 Arcade, for a 5 story concrete business building to be erected on Ludlow St. near 5th St.

★**East Liverpool, O.**—Contract awarded by Elks to Kerr Lumber Co. to erect on 5th St. a lodge building costing $40,000.

★**Springfield, O.**—Contract awarded Feb. 15, for erecting cottage for boys for Ohio Masonic Home, to The Cullen & Vaughn Co., Hamilton; cost about $48,000. Richards, McCarthy & Bulford, Archts, Columbus.

★**Evansville, Ind.**—Contract for erecting 10-story Citizens Natl. Bank awarded to C. A. Fuller Co. of New York at $265,-000.

★**Chicago, Ill.**—Thompson Starrett Co., 175 W. Jackson Boule., General Contractors, have the contract, and it is reported are interested in the erection of the 13 story terra cotta and brick fireproof family hotel on Sheridan Road and to be known as the "Buena."

East St. Louis, Ill.—Bids desired by A. B. Frankel, Archt. Vogel Bldg. until Mar. 29, for erection of the Imanuel Evangelical Church; cost about $20,000.

Luverne, Minn.—Bids desired until Mar. 23 by Herman Jochims, Schleswig, Ia., for erection, including heating and plumbing of an opera house and business building. W. E. E. Greene, Archt., Luverne.

Lincoln, Neb.—Security Mutual Life Insurance Co., reported to have authorized plans prepared for remodeling 6 story building at 12 and O Sts. and making it 10 stories, fireproof construction, and to cost $150,000. F. D. Mason, Chmn. Bldg. Com.

Omaha, Neb.—Masons propose erecting an 8 story fireproof temple at 16th and Capitol Aves., costing $300,000.

★**Great Falls, Mont.**—Contract for erecting the New Park Hotel awarded to Leighland Kleppe & Co., Great Falls, at $126,735. Geo. H. Shanley, Archt., Great Falls.

Booneville, Mo.—Erection of the Nelson Memorial Chapel in connection with the Methodist Church South, and costing about $25,000, is contemplated. Rev. L. C. Clark, Pastor.

★**St. Louis, Mo.**—Following are contracts awarded for erecting the club house for the Athletic Club, to be 10 story concrete and steel. (Bidders all of St. Louis). General contract to Wm. Sutherland Bldg. & Contr. Co., at $302,036; heating and ventilating, F. E. Newberry & Co., $32,663; concrete and steel to Jas. Bright, at $118,985. Wm. B. Ittner and G. F. A. Brueggeman, both of St. Louis, Assoc. Archts.

Plans prepared by Roth & Study, Liggett Bldg., for a 15-room residence to be erected at Kingsbury Pl. and Belt Ave. for Nat. W. Ewing, of Humphrey & Ewing. Cost about $35,000.

★**Austin, Tex.**—Contract for erecting the First Baptist Church awarded to Jas. Watterson, Austin; cost $60,000.

Port Bolivar, Tex.—See "Miscellaneous."

Portland, Ore.—Reported bids desired for erecting the club house and office building which the East Side Business Men's club intends erecting at Grand Ave. and East Adler St. according to plans by Camp & Du Puy, 426 E. Adler St. Cost $50,000.

NEW INDUSTRIAL PLANTS.

See also "Private Buildings."
Items Arranged Geographically

★**Lestershire, N. Y.**—Contracts for 4-story concrete, steel and brick warehouse to be erected for Endicott Johnson Co. costing $150,000, awarded as follows: brick work, M. I. Ford, Binghamton; concrete and cement work, also foundations, Frank E. Whittemore, Lestershire; and structural steel, N. P. Brink, Binghamton.

★**New Castle, Pa.**—Contract awarded to Pennsylvania Eng. Wks., New Castle, for an addition to Carnegie Steel plant, and includes a 1000-ton mixer, a structural steel building, 65x110 ft., a 75-ton crane and 15-50-ton hot metal cars.

★*Items marked thus give the names of parties awarded contracts.*

Philadelphia, Pa.—Reported bids desired by Edw. J. Schoettle Co., 237 N. 6th St., for erecting 8 story reinforced concrete and brick factory at 11th and Brandywine Sts. according to plans by Day and Klauder, 925 Chestnut St.

Sharon, Pa.—Reported Knox Pressed & Welded Steel Co. will enlarge their plant.

Crozet, Va.—The Crozet Ice & Cold Storage Co., of Crozet, Va., will erect an addition to its storage plant of reinforced concrete or brick, 4 or 5 stories high, 50 x 75 ft., with basement, capacity 20,000 bbls. of apples; cost about $25,000. Architect not yet selected.

Thomaston, Ga.—Thomaston Cotton Mills reported to be taking steps to erect a mill 400 x 125 ft. and to install at first 15,000 spindles.

Jacksonville, Fla.—Official reports state bids desired until Mar. 15 by the Port Comrs. (F. W. Bruce, Ch. Engr.), for a cotton compress, with all attachments and appliances, complete ready for use. None except standard construction is desired.

Palmetto, Fla.—Bids reported desired until Mar. 15 for erecting a 40 x 100 ft. and an 80 x 168 ft. fruit packing plant for the Manatee Fruit Co. (F. D. Waite, Mgr.)

Cleveland, O.—Cleveland Seating Co., Rose Bldg., reported to be considering the erection of a factory, power house and dry kilns in E. 131st St. near Belt Line Ry. Cost $100,000. Briggs & Nelson, Archts., Rose Bldg.

Plans being revised by Geo. S. Rider Co., Century Bldg., for a 2 story 117x159 ft. and a 1 story 50x175 ft. dyehouse for the Cleveland Worsted Mills Co.

Tippecanoe City, O.—The Atlas Portland Cement Co. intends erecting a plant east of this city. Capacity to be 5000 bbls. of cement daily.

★**Bay City, Mich.**—Contract for structural steel needed in the acetone plant of the Dupont-deNemours Co. awarded to McClintock Marshall Co. of Detroit.

Faribault, Minn.—Faribault Packing & Provision Co. reported to be planning the erection of a $500,000 packing plant this summer. Capacity 2000 hogs per week.

Armona, Cal.—Kings County Packing Co. will erect a brick 80x150 ft. packing plant costing $75,000.

East San Pedro, Cal.—Plans prepared for a packing house, 235 x 70 ft., and a warehouse, 150 x 65 ft., to be erected for the Southern California Fish Co.

Hamilton, Ont.—Reported United States Horse Shoe Co. of Erie, Pa., contemplates erecting a plant in this city to cost about $125,000.

MISCELLANEOUS.

See also "Hydraulic Construction and River Improvements."

Cement—Boston, Mass.—Bids desired until Mar. 16 by D. Frank Doherty, Supt. Supplies, for furnishing about 5000 bbls. Portland cement.

Cement—Springfield, Mass.—Bids desired until Mar. 18 by Dept. Streets and Engineering (H. F. Clark, Supt.) for furnishing cement.

Elevator, New York.—Bids desired until Mar. 18 by F. J. H. Kracke, Comr. Bridges, for constructing an additional elevator in the North Tower of Queens anchor pier, Queensboro Bridge. Security $2,500.

Boat Hulls, Electric Light Plant, etc., for Dam Work—Pittsburgh, Pa.—Bids desired until Apr. 3 by Capt. Harold C. Fiske, Corps Engrs., U. S. A., Pittsburgh, Pa., for furnishing and delivering steel maneuver boat hulls, steamboat and hand capstans, derricks, kebels, spuds, etc., for Dams Nos. 10, 12, 15, 19, 20 and 29, and engines and electric light plants, etc., for maneuver boats, at Dams Nos. 10 and 29, Ohio River, advertised in Engineering Record.

★**Cement—Washington, D. C.**—Contracts for furnishing Portland cement for U. S. Reclamation Service have been awarded as follows: To Colorado Portland Cement Co., Denver, Col., 1500 bbls. at $1 per bbl. for Grand and Uncompahgre projects, Colo., to International Portland Cement Co., Spokane, Wash., 10,000 bbls. at $1.18 per bbl., for Okanogan and Yakima storage projects, Wash.; Umatilla project, Ore.; to Lehigh Portland Cement Co., Allentown, Pa., 6000 bbls. at $1 per bbl., for Flathead project, Mont., and Sunnyside project, Wash.; to Pacific Portland Cement Co., San Francisco, 1300 bbls., at $1.40 per bbl., for Klamath and Orland projects, Cal.; to Three Forks Portland Cement Co., Ogden, Utah., 11,000 bbls., at $1.20 per bbl., for projects in Montana, and to Union Portland Cement Co., Ogden, Utah, 24,000 bbls. at $1.10 per bbl., for Boise and Minidoka projects, Idaho, and Strawberry Valley project, Utah.

Repairs to Heating Plant, Etc.—Ft. Thomas, Ky.—Bids desired until Mar. 26 at office the Quartermaster, for repairs to central heating plant, including new boilers and furnishing pipe covering, etc.; also furnishing 16,200 ft. pipe covering, 1000 lbs. asbestos cement, 2000 glazed brick and 20 bbls. Portland cement.

Cement—Keosaqua, Ia.—Bids reported desired until Mar. 15 by County Bd. Comrs., for furnishing cement during season of 1915.

Terminal—Port Bolivar, Tex.—Paul T. Bruyere, 50 Church St., New York, is reported to be head of a syndicate which plans to construct at Port Bolivar a system of terminals which will connect with the Santa Fé Railroad.

★**Elevators in City Hall—San Francisco, Cal.**—Contract for installing elevators in new City Hall, awarded to Otis Elevator Co., San Francisco, at $34,075 (bids opened Feb. 10).

Wire, Fencing, Etc.—Ogden, Utah.—Bids desired until Apr. 6 by Purchasing Agent, U. S. Dept. of Agriculture, Forest Service, for furnishing steel and copper telephone wire, brackets, insulators, barbed and barbless wire fencing to the Forest Service during the fiscal year beginning July 1, 1915.

Sand—Ottawa, Ont.—Bids recently received for a supply of sand for city have been rejected. New bids desired. F. C. Askwith, City Engr.

Lumber—Panama.—Bids desired until Mar. 24 by Maj. F. C. Boggs, Genl. Purchasing Officer, Panama Canal, Washington, for Cir. 905—Furnishing lumber.

Proposals

For Proposals Advertised see Pages 42 and 46.

WATERWORKS.

Bids Close.		See Eng. Record.
Mar. 16.	Boilers for Pump Sta., Toronto, Ont. Adv. Mar. 6.	Mar. 6
Mar. 16.	Pumping Equipment, Lyons, Neb.	Feb. 27
Mar. 16.	Pipe, Berwyn, Ill.	Mar. 6
Mar. 16.	System, Yale, Ia.	Mar. 6
Mar. 16.	Improvements, Osawatomie, Kan.	Mar. 13
Mar. 17.	Water Wks., Billings, Mont.	Mar. 6
Mar. 17.	Filtration Plant, Contr. No. 6, Cleveland, O. Adv. Mar. 6, 13.	Mar. 6
Mar. 18.	Air Compressors, pumping engines, etc, Pottsville, Pa.	Mar. 13
Mar. 18.	Pipe, etc., Galveston, Tex.	Mar. 13
Mar. 20.	Wells and Reservoir, McCune, Kan.	Mar. 6
Mar. 22.	Well, Caruthersville, Mo. Adv. Mar. 6.	Mar. 6
Mar. 22.	Improvements, Fredonia, Kan.	Mar. 13
Mar. 22.	Pipe, Asheville, N. C.	Mar. 13
Mar. 23.	Contract 123, New York, N. Y. Adv. Feb. 27 to Mar. 6.	Feb. 27
Mar. 23.	Pipe and Fittings, etc., Washington, D. C.	Mar. 13
Mar. 24.	Pumping Engine, Perth Amboy, N. J. Adv. Feb. 20.	Feb. 20
Mar. 29.	Pipe, etc., Lewistown, Mont.	Mar. 13
Mar. 30.	Pipe, Fittings, etc., Washington, D. C.	Mar. 13
Mar. 31.	Pumping Station, Toledo, O. Adv. Mar. 13.	Mar. 13
Apr. 2.	Pumps, Seattle, Wash.	Mar. 13
Apr. 8.	Water Works, McCune, Kan.	Mar. 13
Apr. 13.	Valves, Toronto, Ont. Adv. Feb. 20 to Mar. 6.	Feb. 20
Apr. 15.	Wells, Winona, Minn. Adv. Mar. 13.	Mar. 13

SEWERAGE AND SEWAGE DISPOSAL.

Mar. 16.	Corning, N. Y. Adv. Mar. 6.	Mar. 6
Mar. 16.	Berwyn, Ill.	Mar. 6
Mar. 16.	Columbus, O.	Mar. 6
Mar. 16.	New York, N. Y.	Mar. 13
Mar. 16.	Toronto, Ont.	Mar. 13
Mar. 17.	Butte, Mont.	Feb. 20
Mar. 17.	Brooklyn, N. Y.	Feb. 27
Mar. 17.	Brooklyn, N. Y.	Mar. 13
Mar. 18.	Cleveland, O.	Mar. 6
Mar. 18.	Burlington, Ia	Mar. 6
Mar. 18.	Leon, Ia.	Mar. 6
Mar. 18.	Brighton, N. Y.	Mar. 6
Mar. 19.	Sandusky, O.	Mar. 6
Mar. 20.	Pablo Beach, Fla.	Mar. 13
Mar. 22.	Enterprise, Ore.	Feb. 20
Mar. 22.	Appleton, Wis.	Mar. 13
Mar. 23.	Kinston, N. C. Adv. Feb. 27 to Mar. 13.	Feb. 27
Mar. 29.	Phoenix, Ariz.	Mar. 6
Mar. 29.	Huntington Beach, Cal.	Mar. 6
Mar. 31.	Enumclaw, Wash.	Mar. 13
Apr. 1.	Flint, Mich.	Mar. 13
Apr. 5.	Brainerd, Minn.	Mar. 13
Apr. 19.	New Orleans, La.	Mar. 6

BRIDGES.

Mar. 15.	Cumberland, R. I. Adv. Feb. 13.	Feb. 13
Mar. 16.	Illinois	Jan. 30
Mar. 17.	North Platte, Neb.	Feb. 20
Mar. 17.	Harrisburg, Pa.	Mar. 6
Mar. 18.	Kingston, Ont.	Mar. 6
Mar. 18.	Lynden, Wash.	Mar. 6
Mar. 18.	Bellingham, Wash.	Mar. 6
Mar. 18.	New York, N. Y.	Mar. 13
Mar. 18.	York, Pa.	Mar. 13
Mar. 18.	New Ulm, Minn.	Mar. 13
Mar. 18.	Bowling Green, Ky.	Mar. 13
Mar. 19.	Cincinnati, O.	Mar. 6
Mar. 20.	Billings, Mont.	Mar. 6
Mar. 20.	Rogersville, Tenn.	Mar. 13
Mar. 20.	Elma, N. Y.	Mar. 13
Mar. 22.	Everett, Wash.	Feb. 27
Mar. 22.	Jefferson, Ia.	Mar. 13
Mar. 22.	Connecticut	Mar. 13
Mar. 23.	Red Cloud, Neb.	Mar. 6
Mar. 23.	Trenton, N. J.	Mar. 13
Mar. 23.	Crookston, Minn.	Mar. 13
Mar. 22.	Newton, Kan.	Mar. 13
Mar. 24.	Concordia, Kan.	Mar. 13
Mar. 25.	Spokane, Wash.	Mar. 13
Mar. 25.	Clinton, Tenn.	Mar. 13
Mar. 31.	Frederickton, N. B.	Mar. 6
Mar. 31.	Armstrong Corner, N. B.	Mar. 13
Apr. 5.	San Marcial, N. M.	Mar. 13
Apr. 6.	Colusa, Cal.	Mar. 13
Apr. 7.	New Hampton, Ia.	Mar. 6
Apr. 15.	Tavares, Fla.	Mar. 13

PAVING AND ROADS.

Mar. 15.	Steelton, Pa. Adv. Feb. 27 to Mar. 13.	Feb. 27
Mar. 15.	Rockford, Ill. Adv. Mar. 6.	Mar. 6
Mar. 16.	Philadelphia, Pa. Adv. Feb. 27 to Mar. 6.	Feb. 27
Mar. 16.	Oiling Roads, Maryland. Adv. Mar. 6, 13.	Mar. 6
Mar. 16.	Maryland	Mar. 6
Mar. 16.	Uniontown, Pa.	Mar. 6
Mar. 16.	Marshall, N. C.	Mar. 6
Mar. 16.	Corning, N. Y. Adv. Mar. 6.	Mar. 6
Mar. 16.	Oshkosh, Wis.	Mar. 13
Mar. 16.	Waycross, Ga.	Mar. 13
Mar. 16.	Hot Springs, N. C.	Mar. 13
Mar. 16.	New York, N. Y.	Mar. 13
Mar. 16.	New London, Wis.	Mar. 13
Mar. 16.	West Newton, Pa.	Mar. 13
Mar. 16.	Road Scarifier, West Orange, N. J.	Mar. 13
Mar. 17.	Sparta, Wis.	Mar. 13
Mar. 17.	Cleveland, O.	Mar. 13
Mar. 17.	Tenafly, N. J.	Mar. 13
Mar. 17.	Troy, O.	Mar. 13
Mar. 17.	Moline, Ill.	Mar. 13
Mar. 17.	Fond du Lac, Wis.	Mar. 13
Mar. 17.	Long Beach, Cal.	Mar. 13
Mar. 17.	Manhattan Beach, Cal.	Mar. 13
Mar. 17.	Oregon	Mar. 13
Mar. 18.	New York, N. Y.	Mar. 13
Mar. 19.	Richland Center, Wis.	Mar. 6
Mar. 19.	Indiana.	Mar. 6
Mar. 19.	Cedar Rapids, Ia.	Mar. 6
Mar. 19.	Louisville, Ky.	Mar. 13
Mar. 19.	Mt. Gilead, O.	Mar. 13
Mar. 20.	Indianapolis, Ind.	Mar. 6
Mar. 20.	Covington, La.	Mar. 6
Mar. 22.	New Brunswick, N. J.	Feb. 20
Mar. 22.	Lawrenceville, Va.	Mar. 13
Mar. 22.	Columbus, Miss.	Mar. 13
Mar. 22.	Barberton, O.	Mar. 13
Mar. 22.	Bakersfield, Cal.	Mar. 13
Mar. 22.	Connecticut.	Mar. 13
Mar. 22.	La Grange, O.	Mar. 13
Mar. 23.	Winona, Minn.	Feb. 27
Mar. 23.	Kinston, N. C. Adv. Feb. 27 to Mar. 13.	Feb. 27
Mar. 23.	Albany, N. Y. Adv. Mar. 6, 13.	Mar. 6
Mar. 23.	Meriden, Conn. Adv. Mar. 6.	Mar. 6
Mar. 23.	North Bend, Ore.	Mar. 13
Mar. 23.	Rockville, Md.	Mar. 13
Mar. 23.	Terrell, Tex.	Mar. 13
Mar. 24.	Columbus, Miss	Mar. 6
Mar. 24.	Charleston, W. Va. Adv. Mar. 13.	Mar. 13
Mar. 25.	Somerville, N. J.	Mar. 6
Mar. 25.	Oroville, Cal.	Mar. 6
Mar. 25.	Alabama	Mar. 13
Mar. 25.	Spokane, Wash.	Mar. 13
Mar. 25.	Jacksonville, Fla.	Mar. 13
Mar. 26.	Richland Center, Wis.	Mar. 6
Mar. 29.	Lansing, Mich.	Mar. 6
Mar. 29.	Seattle, Wash.	Mar. 13
Mar. 30.	Toledo, O.	Mar. 6
Mar. 30.	Toledo, O.	Mar. 13
Apr. 1.	Bloomsburg, Pa.	Mar. 13
Apr. 2.	Ohio	Mar. 13
Apr. 2.	Cincinnati, O.	Mar. 13
Apr. 5.	Ephrata, Wash.	Mar. 13
Apr. 6.	Spokane, Wash.	Mar. 6
Apr. 6.	Lake Charles, La.	Mar. 13
Apr. 7.	Alabama	Mar. 13
Apr. 15.	Tavares, Fla.	Mar. 13
Apr. 19.	Alabama	Mar. 13

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Mar. 15.	Pump. Plant for Lock, Seattle, Wash. Adv. Feb. 6 to 20 and Mar. 6.	Feb. 6
Mar. 16.	Jetty and Dike Wk., Galveston, Tex. Adv. Feb. 20 to Mar. 13.	Feb. 20
Mar. 18.	Dredging, Hartford, Conn.	Feb. 27
Mar. 18.	Dredging, Alpha, O.	Mar. 13
Mar. 18.	Dike, Sluice Gates, Etc., Elizabeth, N. J.	Mar. 13
Mar. 19.	Dredging, Charleston, S. C. Adv. Feb. 20 to Mar. 13.	Feb. 20
Mar. 20.	Pump Plant, Oquawaka, Ill.	Mar. 13
Mar. 22.	Beach Protection, Cape May, N. J. Adv. Mar. 13.	Mar. 13
Mar. 22.	Wharves, Jacksonville, Fla.	Mar. 13
Mar. 24.	Ditch, Slayton, Minn.	Mar. 6
Mar. 25.	Ditches, Mankato, Minn.	Mar. 13
Mar. 26.	Dredge, Duluth, Minn. Adv. Feb. 27 to Mar. 13.	Feb. 27
Mar. 29.	Dredging, Indian Harbor, Ind. Adv. Mar. 6, 13.	Mar. 6
Mar. 30	Dredging, Providence, R. I. Adv. Mar. 6, 13.	Mar. 6
Mar. 30.	Dykes, South Bend, Wash.	Mar. 13
Apr. 5.	Power House, Etc., at Dam, Pittsburgh, Pa. Adv. Mar. 13.	Mar. 13
Apr. 8.	Irrigation Work, Payson City, Utah Adv. Mar. 13.	Mar. 13
Apr. 12.	Steel Gates for Locks, Nashville, Tenn. Adv. Mar. 13.	Mar. 13

PUBLIC BUILDINGS AND SCHOOLS.

Mar. 16.	Dayton, O.	Feb. 27
Mar. 16.	Delaware, O.	Feb. 27
Mar. 16.	Clayville, N. Y.	Mar. 13
Mar. 17.	West Austintown, O.	Feb. 27
Mar. 17.	Sargent, Neb.	Mar. 6
Mar. 17.	Canton, O.	Mar. 6
Mar. 17.	Yountville, Cal.	Mar. 6
Mar. 17.	Hammond, Ind.	Mar. 13
Mar. 18.	Rocky Ridge, O.	Feb. 27
Mar. 18.	York, Neb.	Mar. 6
Mar. 18.	Randalls Island, N. Y.	Mar. 13
Mar. 18.	Kings Park, N. Y.	Mar. 13
Mar. 18.	Los Angeles, Cal.	Mar. 13
Mar. 19.	Corpus Christi, Tex.	Mar. 6
Mar. 20.	Akron, O.	Mar. 6
Mar. 20.	Falls City, Wash.	Mar. 6
Mar. 20.	New Haven, Conn.	Mar. 6
Mar. 20.	Cochrane, Ont.	Mar. 13
Mar. 20.	Graceville, Minn.	Mar. 13
Mar. 20.	Hot Springs, Ark.	Mar. 13
Mar. 20.	Malta, Mont.	Mar. 13
Mar. 22.	Brattleboro, Vt.	Feb. 6
Mar. 22.	Greeley, Colo. Adv. Feb. 20.	Feb. 20
Mar. 22.	Everett, Wash.	Feb. 20
Mar. 22.	Rome, Ga.	Mar. 6
Mar. 22.	Cleveland, O.	Mar. 6
Mar. 22.	Watervliet, N. Y. Adv. Mar. 6, 13.	Mar. 6
Mar. 22.	Coatesville, Pa.	Mar. 13
Mar. 22.	Reading, Pa.	Mar. 13
Mar. 23.	Willoughby, O.	Feb. 27
Mar. 23.	Des Moines, Ia.	Feb. 20
Mar. 23.	Detroit, Mich.	Mar. 6
Mar. 23.	Wyocena, Wis.	Mar. 13
Mar. 23.	St. Marys, O.	Mar. 13
Mar. 24.	Seattle, Wash.	Mar. 6
Mar. 25.	Pendleton, Ore.	Feb. 6
Mar. 25.	Mason City, Ia.	Mar. 6
Mar. 25.	New York, N. Y.	Mar. 6
Mar. 25.	Winfield, Kan.	Mar. 13
Mar. 25.	Hamden, Conn.	Mar. 13
Mar. 26.	Delhi, N. Y. Adv. Mar. 13.	Mar. 13
Mar. 26.	Rochester, Pa.	Mar. 13
Mar. 26.	Rochester, N. Y.	Mar. 13
Mar. 27.	Worden, Wash.	Mar. 13
Mar. 29.	Smyrna, Del.	Feb. 20
Mar. 29.	Dayton, O.	Mar. 6
Mar. 29.	Median, N. D.	Mar. 13
Mar. 29.	Camden, Tenn.	Mar. 13
Mar. 30.	Detroit, Mich.	Mar. 6
Mar. 30.	Pierre, S. D.	Mar. 13
Mar. 31.	Cambridge, O.	Mar. 13
Apr. 2.	Plainfield, N. J. Adv. Feb. 27 to Mar. 6.	Feb. 27
Apr. 2.	Tontogany, O.	Mar. 13
Apr. 5.	Tuba, Ariz.	Mar. 13
Apr. 5.	Ames, Ia.	Mar. 13
Apr. 6.	Live Oak, Fla.	Feb. 27
Apr. 6.	Ridgeland, S. C.	Mar. 13
Apr. 6.	Edinburg, O.	Mar. 13
Apr. 12.	Cincinnati, O.	Mar. 13
June 1.	Harrisburg, Pa.	Mar. 13

PRIVATE BUILDINGS.

Mar. 17.	Washington, Pa.	Mar. 13
Mar. 23.	Luverne, Minn.	Mar. 13
Mar. 25.	Wilmington, Del.	Jan. 9
Mar. 29.	East St. Louis, Ill.	Mar. 13

MISCELLANEOUS.

Mar. 16.	Coal Handling Apparatus, Boston, Mass.	Feb. 27
Mar. 16.	Street Car Line Materials, Toronto, Ont. Adv. Mar. 6.	Mar. 6
Mar. 16.	Cement, Boston, Mass.	Mar. 13
Mar. 16.	Electric Ry. Franchise, Louisville, Ky.	Mar. 13
Mar. 18.	Telephone Franchise, Ludlow, Ky. Adv. Mar. 6, 13.	Mar. 6
Mar. 18.	Elevator, New York, N. Y.	Mar. 13
Mar. 18.	Cement, Springfield, Mass.	Mar. 13
Mar. 22.	Snubbing Posts, Etc., Panama	Mar. 6
Mar. 24.	Lumber, Panama	Mar. 13
Mar. 26.	Repairs to Heating Plant, Ft. Thomas, Ky.	Mar. 13
Mar. 27.	Electric Traveling Crane, Washington, D. C.	Mar. 6
Mar. 29.	Coal Handling Apparatus in Mint, Philadelphia, Pa. Adv. Mar. 6, 13	Mar. 6
Mar. 30.	Freight Life, St. Louis, Mo.	Mar. 6
Mar. 30.	Elevator, Detroit, Mich.	Mar. 6
Mar. 30.	Garbage Disposal, Norfolk, Va.	Mar. 13
Apr. 1.	Garbage Disposal, Wilmington, Del. Adv. Feb. 27 to Mar. 13.	Feb. 27
Apr. 3.	Elevator, Pearl City, T. H.	Mar. 6
Apr. 3.	Garbage Plant, Rock Island, Ill	Mar. 6
Apr. 3.	Boat Hulls, Electric Light Plants, Etc., for Dam, Pittsburgh, Pa. Adv. Mar. 6, 13.	Mar. 6
Apr. 6.	Wire, Fencing, Etc., Ogden, Utah	Mar. 13

★*Items marked thus give the names of parties awarded contracts.*

New Construction Activities

Of the $27,000,000 issue of New York State 4¼-per cent bonds which were bought last week at a little more than 103, $10,000,000 have been resold and the remainder are now being offered at 101¼—a considerable loss to the syndicate which subscribed for them. The State of Georgia, however, sold this week $3,500,000 worth of 4¼ per cent bonds at a premium, and the city of St. Louis sold $2,750,000 of 4½ per cent 20-yr. bonds at prices in excess of 104. Beside this, the sale of a fair sized total of county and municipal bonds was recorded last week throughout the country. On the other hand, thirty leading railroad and industrial stocks closed on March 16 at an average of 84, 14⅝ points below the price of a year ago and slightly below the prices prevailing during the last month. The sales of bonds at good figures, however, indicates that in spite of the industrial depression a fair amount of money will be invested this year in permanent improvements requiring construction work.

Orders for export steel continued to come in during the first half of March at the rate of 75,000 tons a week. Orders for cars, rails and bridge steel continue to be placed at a slightly decreased rate by American railroads. Moreover, Eastern ship yards have bought a considerable tonnage of plates and shapes lately.

Buildings

Among the building contracts let this week is a school building to cost $182,000 at Columbus, Ohio, and another school at Toledo, on which three contracts totaling $194,000 were awarded. The lowest bid for erecting an experiment station for the U. S. Bureau of Mines at Pittsburgh was $258,000. Bids on a $125,000 post office for Lawton, Okla., were opened at Washington, D. C. It is reported that the Secretary of the Interior at Washington has entered into a contract for the erection of a $250,000 plant for manufacturing gasoline, dye stuffs and explosives from petroleum base by the Rittman process. A contract was awarded at Lakewood, Ohio, for a $98,000 Masonic Temple, and another at Allentown, Pa., for a $70,000 bank. A contract at Conshohocken, Pa., for erecting a church was awarded at $100,000. An apartment house contracted for in New York City will cost $150,000. It is also reported that Vanderbilt University at Nashville desires bids for erecting a $200,000 laboratory. Bids are called for on a $150,000 Masonic Temple at Salem, Mass., and Chicago desires bids for erecting a large public school. Plans are being prepared for the $600,000 Central Y. M. C. A. building to be erected at Lexington Avenue and Fifty-third Street, New York City. Plans are being prepared for $150,000 private buildings at Newark, N. J., and at Chicago. Plans are being prepared for a bank and office building to cost $250,000 at Vancouver, B. C., and for an apartment house to cost $200,000 at Ogden, Utah. It is also reported that plans for the $1,000,000 theater and office building at Seattle, Wash., are under way. An ordinance calling for the construction of a $350,000 asylum building at Marshalsea, Pa., has been approved. A $500,000 cotton mill project is reported from Memphis, Tenn.

Bridges and Roads

Small bridge contracts were awarded last week at Superior, Wis., and Montgomery, Ala. A bond issue of $545,000 has been voted at Seattle to cover the cost of one of the concrete bridges proposed there. Fifty thousand dollars worth of bridge work for the Iowa Post Road will be let soon at Dubuque. The low bid for paving work in Long Island City was about $25,000. Contracts for paving work were awarded at Geneva, N. Y.; Detroit, and Columbus, Neb. Bids are also desired for paving at Meriden, Conn., and Columbus, Ohio, will let two paving contracts on March 31. Bids are desired for considerable road material at Chicago, and for $90,000 worth of road work at Dubuque, Iowa. Bids are also desired for paving work at Walla Walla, Wash., which will cost about $90,000. Fargo, N. Dak., will offer for sale $140,000 worth of paving warrants on March 31. Lee County, N. C., has sold $100,000 worth of paving bonds, and the citizens of Bryant, Texas, have voted $400,000 for road improvements.

Waterworks and Sewers

Only one bid was received at Rochester, N. Y., for 2350 tons of castings and pipe, $54 a ton for the castings and $20.90 a ton for the pipe being bid. A contract for 4450 tons of pipe at Portland, Ore., was awarded at $29.48 a ton. Sandusky, Ohio, desires bids for a 1200-ft. intake line with a crib in Sandusky Bay and a shaft on shore. Bids are desired for constructing a waterworks and sewerage system at Winnsboro, S. C. The Brookline, Mass., commission has passed an appropriation of $200,000 for constructing a filter plant. Improvements recommended in the municipal water supply of Louisville, Ky., will cost $900,000. Plans are to be prepared for an additional filtration plant to cost $1,000,000 on the east side at Cleveland. The lowest bid received by the city of Chicago for five pumping engines was $448,000. A $79,000 sewer contract was awarded at Lyons, N. Y. In addition a sewage disposal plant which will cost $37,000 was contracted for by this city. A contract was awarded at Detroit for a $90,000 sewer system in Belle Island Park. Bids are desired at Rochester, N. Y., for a $145,000 sewer tunnel. Indianapolis, Ind., will shortly let $380,000 worth of sewer work. Bids are desired on sewer extensions at Cleveland. One hundred and fifty thousand dollars has been appropriated to begin construction on a $600,000 sewer system at Wellesley, Mass.

Miscellaneous

Companies have been organized and preliminary steps taken toward building electric railroads at Libby, Mont.; Miami, Okla., and McConnellsburg, Pa. A railroad company has been formed to build 18 miles of lines near Fairmont, W. Va. It is reported that a railroad will be built from Salmon, Idaho, to Lewiston. It is reported that three grade crossings will be eliminated at Niagara Falls, N. Y., this year. A proposition has been made to the Commissioner of Docks and Ferries of New York City to construct a 1200-ft. pier at the foot of Twenty-ninth Street in Brooklyn. Drainage work at Tallahassee, Fla., involving 20,000,000 cu. yd. of excavation, was let on March 8. The low bid for dredging the harbor of Port Aransas, Texas, was $74,158. It is reported that a $375,000 irrigation contract has been let at Fowler, Colo. The lowest bid opened by the U. S. Reclamation Service for canal excavation at Grand Junction, Colo., is reported as being $100,261.

WATERWORKS.

Items Arranged Geographically

Greenville, N. H.—Citizens Mar. 8 voted to construct a water system for domestic purposes costing $18,000. H. J. Taft, Chmn. Bd. Water Comrs.

Troy, N. H.—Citizens Mar. 9 voted in favor of constructing a system of water works, and appropriated $40,000 for said purpose. Melvin T. Stone, Chmn. Comrs.

Brookline, Mass.—Com. has passed an appropriation of $200,000 for construction of a covered filter and basin for improving the water supply.

Salem, Mass.—Following are 2 lowest bids opened Mar. 10 by Salem and Beverly Water Supply Bd. (N. Matthews, Chmn.) at City Hall, Salem, for constructing additional works for water supply from the Ipswich River, including: 1st section—construction of a dredge, 120,00 cu. yd. of excav., 2870 ft. of conduit and accessories; 2d section—an electric-generator driven centrifugal pump, a steam-turbine driven generator, transmission line, transformers, switchboard and wiring, McHarg-Barton Co., New York, $46,000; Fred T. Ley, Springfield, $50,000. Hazen, Whipple & Fuller, Consulting Engrs., 30 E. 42d St., New York.

Batavia, N. Y.—I. J. Carmichael, City Clk., writes that city is about to employ an engineer to make alterations to water and sewage pumping stations and to erect standpipe.

Bellmore, L. I., N. Y.—The application made by the Bellmore Citizens' Water Co. to construct a plant and create a water supply district in the village has been approved by the State Conservation Comn.

Buffalo, N. Y.—Council has approved resolution calling for bond issue of $250,000 for completition of construction work at Porter Ave. pumping station and purchase of land.

Contracting News

Of Special Interest to Engineers, Contractors, Builders and Manufacturers of Engineering and Building Supplies

Elmira, N. Y.—Citizens have voted to issue $1,500,000 bonds to purchase and improve water works, and bids for bonds are desired by City Clerk until Mar. 29.

Le Roy, N. Y.—Citizens Mar. 11 voted in favor of issuing $105,000 bonds for water supply. J. P. Wells, Rochester, Engr.; Carlos A. Chapman, Village Clk.

Long Island City, L. I., N. Y.—Bids were opened Mar. 8 by Comr. Water Supply, Gas and Electricity, New York, for laying water main in Queens Boro., as follows:

Sect. 1, mains in Buckley, Goodrich, Marion, Meadow and other streets, 1st Ward. Lowest bidder: Grippi Contr. Co., 439 Boule., Long Island City, at $19,629, including valves, hydrants, etc. Unit prices on principal items as follows: 400 tons c.-i. pipe, $22; 18 tons c.-i. castings, $50; 28 tons c.-i. castings, $29; 3000 ft. 12-in. pipe to lay, 35 cts.; 12,500 ft. 8-in., 33 cts.; 600 ft. 6-in., 20 cts. Next three lowest bids: L. D. Gregory, $19,922; Knight & DeMicco, $20,549; Brady-Oltarsh Constr. Co., $20,655.

Sect. 2, water mains and appurtenances in Bank, Grosvenor, High, Miller and other streets, 3d Ward. Lowest bidder: Brady-Oltarsh Contr. Co., at $24,114. Their unit prices on principal items, as follows: 500 tons c.-i. pipe, $20.75; 20 tons c.-i. castings, $50; 32 tons c.-i. castings, $29; 2900 ft. 12-in. pipe, 37¾ cts.; 16,500 ft. 8-in. pipe, 37¾ cts. Next 2 lowest bids: Murphy Bros., $26,463; L. D. Gregory, $27,473.

★**Lyons, N. Y.**—Bids were opened Mar. 3, by Municipal Bd., for extending water system from plans of J. F. Witmer & Co., Dunn Bldg., Buffalo, and contracts have been awarded as follows: For valves, valve boxes and hydrants to Eddy Valve Co., Waterford, at $2,561; Steel stand pipe to Des Moines Bridge & Iron Wks., Pittsburgh, Pa., $4,543; pumping machinery to Rumsey & Co., Seneca Falls, $3,924; and pipe laying to Kennedy Hamilton Co., Utica, $22,746.

Madrid, N. Y.—City Clerk writes bids have not yet been asked for the proposed water works to cost $22,000.

★**Middletown, N. Y.**—Contract for constructing a 20-in. water main 6000 ft. from Highland Lake towards the filter plant has been awarded to P. L. Braunworth, of Montclair, N. J., at $9,888.

★**Mt. Morris, N. Y.**—Press reports state that contract for completing water works reported to have been relet to the Monmouth Constr. Co., of Red Bank, N. J., at $11,943.

New York, N. Y.—Bids were opened Mar. 8 at the office of Wm. Williams, Comr. Water Supply, Gas and Electricity, for furnishing and laying water mains and appurtenances in Southern Boule., Boro. of Bronx, and lowest bid was submitted by L. D. Gregory, 212 W. 138th St., New York, at a total of $19,991, including pipe, valves, hydrants, etc. The unit prices of the principal items in his bid are as follows: 310 tons c.-i. pipe, $22; 20 tons c.-i. castings, $50; 18 tons c.-i. castings, $40; 4500 cu. yds. earth excav., 25 cts.; 900 cu. yds. rock excav., 25 cts.; 70 cu. yds. masonry excav., 25 cts.; 7800 ft. 12-in. pipe, 25 cts.; 300 ft. 6-in. pipe, 20 cts. Next 3 lowest bids: Melrose Contr. Co., $20,878; Knight & DeMicco, $22,247; Soraci Contr. Co., $23,892.

New York, N. Y.—Lowest bids opened Mar. 11 by Wm. Williams, Comr. Water Supply, Gas and Electricity, for furnishing, delivering and laying 12-in. water main across East River from E. 104th St. to North Brother Island, and hauling and laying water mains and appurtenances in E. 104th St. and on North Brother Island, Boro. Bronx, was submitted by H. E. Fox Constr. Co., at $15,609. Their unit prices on some of the principal items was as follows: 190 tons 12-in. pipe $32; 600 cu. yds. earth excav., $2.50; 900 ft. 12-in. pipe to lay, $2; 80 ft. 6-in. pipe, 30 cts.; 1750 ft. 12-in., $3.25. Next three lowest bidders: Hanover Contr. Co., $16,710; L. D. Gregory, $16,914, and John Cornwell, Jr., $18,747.

New York, N. Y.—Bids desired until Mar. 25 by Wm. Williams, Comr. Water Supply, Gas and Electricity, to furnish, deliver, unload, stack and store c.-i. pipe

★*Items marked thus give the names of parties awarded contracts.*

specials and valve boxes, castings, valves and double nozzle fire hydrants in Manhattan and Bronx Boroughs; also haul and set fire hydrants and appurtenances in various streets, Richmond Boro.

Rochester, N. Y.—Only bid opened Mar. 3 by Bd. Contract and Supply for furnishing 2350 tons special castings and pipe for water works distributing system was submitted by U. S. C. I Pipe & Fdry. Co., of Buffalo, at $54 per ton for castings and $20.90 for pipe; total cost $51,148.

Yonkers, N. Y.—City Engineer Fulton submitted his first report to Common Council on survey maps of land to be acquired for enlargement of Grassy Sprain reservoir; for construction of a new reservoir in Sprain Valley, and for diverting waters from Woodlands Lake into these storage basins by means of tunnels and conduits.

★**Clinton, N. J.**—Contract awarded Mar. 5 for constructing reservoir and pump house at Women's Reformatory, to the Suburban Eng. Co., of New York. Cost reported to be $10,000. Geo. S. Drew, State Archt., Trenton.

Du Bois, Pa.—C. W. McKnight, of Rome, N. Y., reported to be preparing plans for increasing capacity of reservoir. H. A. Daly, Chmn. Water Com.

Lynchburg, Va.—Bids desired until Apr. 6 by Council Com. on Water for emergency pumping station and booster pump, advertised in Engineering Record. Work includes: Div. 1—two brick buildings; 2—3 centrifugal pumps; 3—transformers, motors and other electrical equipment; 4—c.-i. pipe, valves, etc.; 5—liquid chlorine apparauts. H. L. Shaner, City Engr.

Williamsburg, Va.—Business Men's Association is advocating construction of water works and sewer system.

Manning, S. C.—Bonds in the sum of $40,000 reported sold by Water Works Comn. (C. R. Sprott, Chmn.) to be used for water works and a sewer system.

Union, S. C.—Bids desired until Mar. 31 by the City Council (W. D. Arthur, Clk. and Treas.) for $25,000 water works improvement bonds.

Winnsboro, S. C.—Bids desired until Mar. 23 by the J. B. McCrary Co., Engrs., of Atlanta, Ga., at office of T. A. Moore, Clk. of Joint Comrs., Winnsboro, for furnishing material for a water works and sewerage system and improving light plant, requiring approximately a 180-hp 4-valve engine, a 125-kva generator, 2 750-g.p.m. Underwriter's steam fire pumps, a 250-g.p.m. centrifugal pump and 25-hp motor, 5 15-kw transformers, a 75,000-gal. tank on 75-ft. tower, 341,000 bricks, 652 bbls. cement, 30,742 ft. 6 and 8-in. c.-i. pipe, 17,900 ft. 1½-in. galvanized iron pipe, 9 tons c.-i. specials, 37,050 ft. 6 to 12-in. t.-c. sewer pipe, etc.

Alma, Ga.—Citizens voted to issue $15,000 bonds for installing waterworks.

Jefferson, Ga.—Bids desired until Apr. 19 by Homer Hancock, City Clk., for water works and sewer materials, delivered f.o.b. Jefferson, to include approximately 150 tons 6 and 8-in. c.-i. pipe, Class B; 6 tons c.-i. specials, 10 6 and 8-in. gate valves, 1 15 x 50 ft. standpipe, 250 bbls. Portland cement, 11,000 lin. ft. galvanized service pipe and fittings, 13,100 ft. 8 and 10-in. vitr. sewer pipe and fittings, 15,000 lbs. c.-i. manhole covers, crushed stone for concrete, a 12-ft. gravity filter and agitator, a 24-ft. subsidence tank, a 350 g.p.m. motor-driven centrifugal pump, 50 ft. head; a 350-ft. motor-driven centrifugal pump, 250 ft. head; a 50-hp gasoline engine, etc. Solomon-Norcross Co., Engrs., Atlanta, Ga.

Palmetto, Fla.—City Council reported to be considering extension of sewer system, storm sewers and water system; also about 4 miles of pavement; cost about $100,000.

Knoxville, Tenn.—Water works improvements involving an expenditure of about $500,000 are recommended by the Bd. of Commerce Water Com., including a 15,000,000 gal. pump for river station to cost $60,000 or $85,000; water mains to cost $75,000; additional gate valves, cost $8,000; additional fire hydrants, $16,000; and meters for all services to cost $80,000.

Local press reports state that Geo. P. McTeer, Water Comr., is getting prices for pipe for a 16-in. water main to carry the water direct from reservoir to Scott Ave.

Spring City, Tenn.—The question of issuing bonds for constructing water works reported under consideration.

Covington, Ky.—H. G. Meiners, City Engr., writes that the proposed emergency main from Ft. Thomas along Three Mile Creek will be about 4½ miles long, 24-in. diam., including crossing of Licking River 400 ft. wide; cost, $200,000. Engineer, Geo. Hornung, of Newport.

Louisville, Ky.—Improvements in the municipal water system costing $900,000 are proposed by Wm. O. Head, Pres. of Louisville Water Co., in his annual report.

Alliance, O.—Chester & Fleming, Pittsburgh, Pa., engaged to prepare plans and specifications for a reinforced concrete elevated tank. Work will be advertised at an early date.

Akron, O.—Citizens voted $600,000 water bonds, and steps will be taken at once to complete the system.

Barberton, O.—Council has passed on ordinance providing for issue of $17,500 bonds for enlarging water works.

Cincinnati, O.—Bids desired until Apr. 14 by City Auditor for $100,000 bonds, issued for the purpose of extending, improving and enlarging water works and constructing a high pressure system of water mains and pumps for fire protection purposes and procuring necessary rights-of-way.

★**Cleveland, O.**—Contracts have been approved by City Bd. of Control as follows: C. I. pipe of various sizes to U. S. Cast Iron Pipe & Fdy. Co., at $25,000; pig lead to Grodin Bros., of Cleveland, at $7,685; for 2 electric traveling cranes for Division Ave. pumping station, Cleveland Crane & Eng. Co., Wickliffe, at $8,490.

Bids desired until May 26 by Commissioner Purchases and Supplies, for steel reinforcing bars for West Side Tunnel extension, Dept. Pub. Utilities, Div. of Water.

Plans for East Side filtration plant will be prepared as soon as the Division Ave. plant is completed; capacity 75,000,000 gal.; cost $1,000,000. R. W. Pratt, City Sanitary Engr.

Fostoria, O.—Bids desired by E. K. Cunningham, Dir. Pub. Service, until Mar. 31, for the purchase of $65,000 bonds, to be used for reservoir of earth embankment lined with riprap or concrete; also 3 gate valves. Chas. Latshaw, City Engr.

Mt. Blanchard, O.—Bonds in the sum of $10,000 reported sold, to be used for construction of water works.

Sandusky, O.—Bids desired until Apr. 3 by John J. Molter, Dir. Bd. Pub. Service, for furnishing material and constructing a 42-in. intake from pumping station to a point in Sandusky Bay, 1200 ft. off shore; also a concrete intake and crib a concrete well in pumping station, 400 ft. 30-in. pipe from sewage treatment plant to a point in Sandusky Bay; all dredging, rock excav., valves, pipes and submarine universal joints necessary for completion of job, advertised in Engineering Record.

Sebring, O.—The Water Co. has engaged Chester & Fleming, Pittsburgh, Pa., to make an appraisal of Water Works in connection with an expert appointed by city to determine value of plant.

East Chicago, Ind.—The East Chicago & Indiana Harbor Water Co. contemplates improvements and extensions, to cost about $23,000.

★**Paoli, Ind.**—Contract for constructing reservoir and pumping station for filtration plant awarded to Norwood Eng. Co., Florence, Mass.

Chicago, Ill.—Following are totals of bids opened by Bd. Pub. Wks. Mar. 12 for furnishing and erecting 5 pumping engines at Mayfair Pumping Station: Filer & Stowell, Milwaukee, $497,900; Allis-Chalmers Co., Milwaukee, $448,750; Holly Mfg. Co., Buffalo, $489,679; Hover, Owens, Rentsler Co., Hamilton, O., $498,700; Nordberg Mfg. Co., Milwaukee, $464,800; Wm. Tod Co., Youngstown, $629,800.

Chicago, Ill.—Bids desired until Mar. 26 by Bd. Local Improvements (Edw. J. Glackin, Secy.) for constructing water service pipes in portions of N. 48th Ave., S. May, S. Carpenter and several other streets.

Maywood, Ill.—Bids desired until Mar. 25 by Bd. Local Improv. for 18,940 ft. 6-in. and 2650 ft. 4-in. c.-i. water pipe. Robt. E. Williams, Engr., 118 N. La Salle St., Chicago.

★**Milwaukee, Wis.**—Contract for laying water mains during the year awarded to Michael O'Donnell, Milwaukee.

★Contract awarded by Bd. Pub. Wks. for furnishing gate valves to Chapman Valve Co., Chicago, Ill.

Morning Sun, Ia.—Bids desired until Apr. 5 by W. B. Garvin, Town Clk., for $15,000 water works bonds.

Bridgeport, Neb.—See "Sewerage and Sewage Disposal."

Lewistown, Mont.—Bids desired until Mar. 29 by H. L. Fitton, City Clk., for furnishing 100 tons of standard c.-i. pipe; also same time and place for furnishing 8 Eddy hydrants and 21 valves, both proposals advertised in Engineering Record.

Missoula, Mont.—It is reported that the city will soon call a special election to vote bonds for construction of municipal water works, to cost $500,000.

Kansas City, Mo.—Bids desired until May 5 by J. . Langan, Purchasing Agent for designing, constructing and delivering a steam turbine reduction gear, centrifugal pumping unit of a capacity to pump continuously 20,000,000 U. S. gals. of water per 24 hrs. against a total combined head of 360 ft. and steam pressure of 165 lbs. per sq. in. at throttle; together with machinery and appurtenances, advertised in Engineering Record. Burton Lowther, Ch. Engr.

★**St. Louis, Mo.**—Contract for water pipe to be laid from city limits to Industrial School at Bellefontaine Farms, a distance of 8 miles, is reported awarded to the National Tube Co., at $15,435.

Benham, Tex.—Bids reported soon to be asked for water mains in business district; also for sewer system to include 2 septic tanks. Engineers, O'Neil Eng. Co., Dallas. Bonds amounting to $30,000 have been sold for this purpose.

Houston, Tex.—City Council considering issue of $20,000 bonds to be used for constructing concrete settling tanks at water works to replace the old tanks now in use.

★**Livingston, Tex.**—Contract reported awarded to Brown & Wilder, of Houston, for water works; cost, about $25,000.

Temple, Tex. — Water Comrs. have adopted plans for concrete dam and spillway to be constructed over Leon River at water works pumping station; cost $25,000.

Timpson, Tex.—A bond issue of $17,000 is available for construction of water works. Address the Mayor.

Raymond, Wash.—Citizens voted to purchase water system of Raymond Water Co.; a bond issue of $117,500 to pay for the plant, and provide funds for extension and improvements has also been authorized.

J. E. Elwood, City Clk., writes bids are desired until Mar. 31 for the purchase of the above bonds. J. D. Henry, City Engr.

Tacoma, Wash. — Superintendent of Water Works Savage has recommended to Council the connecting of Hood St. reservoir to South Tacoma pumping station; cost approximately $90,000.

★**Portland, Ore.** — Contract reported awarded Mar. 3 to U. S. Cast Iron Pipe & Fdy. Co., for 4,450 tons c. i. pipe to be used by Water Bureau for new mains during 1915, at $29.48 per ton; total cost $128,415. Smith & Watson Iron Wks. secured contract for fittings at 2¾ cts. per lb.

★**Azusa, Cal.** — Contracts reported awarded as follows on Feb. 27, for water works: To Mesmer & Rice, 230 Marsh-Strong Bldg., Los Angeles, to haul, lay pipe, trench and backfill, $5,900; American Cast Iron Pipe Co., c. i. pipe, at $14,846; American Steel Pipe & Tank Co., riveted steel pipe, at $1,200; N. O. Nelson Mfg. Co., for National tube valves. Bids on hydrants were rejected. F. C. Roberts, Engr., 425 Marsh-Strong Bldg., Los Angeles.

Pocatello, Idaho.—J. A. Jones has made proposition to City Council to buy the $400,000 bond issue voted last year for construction of a water system; also to install a system.

Regina, Sask.—The proposed city construction work for 1915 includes a 900-ft. subway for pedestrians, some storm water sewers and large size water mains and extensions to filter beds at sewage disposal works. Plans and estimates not yet prepared.

Philippine Islands.—Lowest bids opened Mar. 9 by Col. S. W. Roessler, Corps Engrs., U. S. A., Army Bldg., New York, N. Y., for 20 tanks, from 2250 gal. to 5700 gal. capacity for Philippine Islands, submitted by Robt. S. Hall, Warren, Pa., at $6,520.

SEWERAGE AND SEWAGE DISPOSAL.

Items Arranged Geographically

Fitchburg, Mass.—Bids desired until Apr. 7 by Bd. Sewage Disposal Comrs., 745 Main St. (Arthur H. Lowe, Chmn.) for constructing Sect. 7 of the main intercepting sewer covering a distance of about 3400 ft., advertised in Engineering Record. David A. Hartwell, Ch. Engr.

Lawrence, Mass.—Arthur D. Marble, City Engr., writes proposed sewer work is being done by the day; discharges into existing sewers and eventually into Merrimack River by gravity; work includes about 13,000 ft. 10 and 12-in. pipe sewers; total cost $40,000.

Wellesley, Mass.—An appropriation of $150,000 has been authorized to start construction of a sewer system; when completed will cost about $600,000.

New Haven, Conn.—Bids desired until Mar. 29 by F. L. Ford, City Engr., for constructing sewers in portions of Tyler, Peck, and Miller Sts. and King Pl.

★**Fitchburg, Mass.**—Following are unit prices of 4 lowest bids opened Mar. 2 by Bd. Water Comrs. (Thos. P. Sheldon, Pres.) for constructing Ashby reservoir: (a) E. W. Foley Contr. Co., 71 Wall St., New York, $99,105 (awarded contract); (b) International Constr. Co., Boston, $104,994; (c) Hassam Paving Co., Worcester, $107,135; (d) De Onfro Bros., Leominster, Mass., $111,566. Metcalf & Eddy, Engrs., 14 Beacon St., Boston.

	*(a)	(b)	(c)	(d)
90 acres clear and dispose of trees, etc.	$40.00	$40.00	$50.00	$100.00
60 acres grubbing stumps and roots (not including loam or subsoil)	85.00	150.00	100.00	100.00
Collect and dispose of loose stumps, etc., at reservoir site (lump sum)	250.00	800.00	400.00	1,000.00
400 cu. yds. earth excav. for pipe trenches	1.00	.30	.35	.50
19,600 cu. yds. excav. of loam, subsoil or earth	.40	.35	.50	.50
3,200 cu. yds. earth excav. from curtain wall trench bet. 0 and 10 ft. deep	.80	1.25	.75	1.00
2,300 cu. yds. earth excav. from curtain wall trench bet. 10 and 24 ft. deep	1.00	1.70	1.75	2.00
800 cu. yds. earth excav. from curtain wall trench bet. 24 and 36 ft.	1.50	2.75	2.50	3.00
21,300 cu. yds. earth excav. from borrow pits for dam and dike	.60	.50	.75	.60
5,600 cu. yds. earth excav. for road construction	.50	.45	.50	.50
1,900 cu. yds. earth excav. from borrow pits for roads and fills	.50	.35	.60	.50
100 cu. yds. earth excav. for drainage ditches in swamps	1.00	.75	.60	.30
2,200 cu. yds. rock excav. within sites of dam and dike, and in pipe trench	1.25	1.70	1.75	1.50
4,600 cu. yds. rock excav. for road construction	1.00	1.40	1.50	.75
500 cu. yds. handle and remove boulders exceeding ½ cu. yd. from borrow pits	1.00	.70	.75	.40
2,100 cu. yds. furnish and place bond gravel in roads	.80	1.35	1.50	1.50
15,000 cu. yds. excavated material hauled over 1,000 ft. limit of free haul	.03	.025	.025	.08
8,700 sq. yds. grassing earth surface	.15	.02	.10	.03
2,400 cu. yds. concrete masry. in curtain walls of dam and dike	8.50	9.50	7.25	8.00
1,470 cu. yds. concrete masry. in gate-house substructure, spillway dams, gate manhole, road culverts, cut-off walls on pipe lines or elsewhere	7.50	8.00	6.50	7.00
Use of grouting apparatus and equipment (lump sum)	150.00	50.00	150.00	75.00
100 cu. ft. cement grout placed	2.50	.50	2.00	.50
179,000 lbs. twisted or deformed steel reinforcing bars for concrete	.025	.04	.03	.03
30 lin. ft. 16-in. pipe, c.-i. pipe and specials, to haul and lay	1.00	.20	.40	1.00
1270 lin. ft. 24-in. pipe, c.-i. pipe and specials, to haul and lay	1.00	.20	.55	1.00
5,300 sq. yds. medium stone pav. laid in screened gravel.	.75	.20	.50	.70
50 sq. yds. medium stone pavd. in screened gravel, joints pointed with Portland cement mortar	1.00	.35	1 00	.90
1,900 sq. yds. heavy stone pav. in screened gravel, joints pointed with Portland cement mortar	1.25	.45	1.50	1.00
Superstructure of gate-house (lump sum)	500.00	900.00	650.00	400.00
29 M ft. 4-in. grooved and splined wooden sheet piling	60.00	.60	60.00	45.00
2,000 lin. ft. wooden rail fence on road	.35	.35	.30	.40
Set iron work (lump sum)	250.00	150.00	100.00	300.00
Remove stone, timber and iron work (lump sum)	250.00	400.00	150.00	150.00
Stream control during construction (lump sum)	500.00	500.00	200.00	1,000.00

★**Salem, Mass.**—Following are 4 lowest bids submitted, with Engineer's estimate, to the Salem and Beverly Water Supply Bd. (N. Matthews, Chmn.) and opened Mar. 10 for constructing additional works for water supply from Ipswich River, including 1st section, construction of a dredge; 2d section, an electric generator, driven centrifugal pump, a steam turbine driven generator, transmission line, transformers, switchboard and wiring, from plans of Hazen, Whipple & Fuller, 30 E. 42d St., New York: (a) Engineer's estimate, $72,545; (b) McHarg-Barton Co., 171 Madison Ave., New York, $47,530; (c) F. T. Ley & Co., Inc., Springfield, $50,959 (awarded contract); (d) Thos. Fitzgibbons Co., Beverly, $54,642; (e) Bay State Dredging Co., Boston, $57,332.

	(a)	(b)	*(c)	(d)	(e)
110,000 cu. yds. canal excav.	$0.25	$0.11	$0.15	$0.18	$0.22
9,000 cu. yds. general excav.	1.00	.60	1 00	.85	.70
275 cu. yds. concrete	10.00	7.00	8.50	11.25	11.00
6,000 lbs. steel reinforcing	.05	.03	.04	.03	.05
1,430 ft. conduit	7.00	5.00	5.00	5.87	5.50
420 ft. 36-in. c.-i. pipe on piles	4.00	2.00	5.30	3.22	2.50
1,020 ft. vitr. or concrete pipe	4.00	3.25	2.90	3.37	3.35
150 sq. yds. paving	1.50	.80	1.25	1.21	1.50
Dredge	10,000.00	12,000.00	7,000.00	7,000.00	6,325.00
Pumping station (lump sum)	4,000.00	2,500.00	1,575.00	1,975.00	3,500.00
Construction under roadways (lump sum)	1,000.00	1,000.00	75.00	400.00	200.00
Appurtenances (lump sum)	2,000.00	1,000.00	1,500.00	1,178.00	925.00

★*Items marked thus give the names of parties awarded contracts.*

Brooklyn, N. Y.—Bids desired until Mar. 25 by Dept. Parks, New York City (Cabot Ward, Pres.), for furnishing material and constructing sanitary sewers, 6-in. c.-i. force mains and 3 sewage pumping stations for buildings in Prospect Park, Boro. Brooklyn, together with work incidental thereto. Security $3,500.

★**Lyons, N. Y.**—Following are 4 lowest bids opened Mar. 3 for the construction of sewer system from plans of J. F. Witmar & Co., Dunn Bldg., Buffalo: (a) Kennedy-Hamilton Co., Utica, $79,004 (awarded contract); (b) Brady-Oltarsch Constr. Co., New York, $85,571; Frank George, White Plains, $90,987; Leary & Morrison Co., Rochester, $111,890.

Unit prices of (a) successful bidder, and (b):

	*(a)	(b)
6-in. Vitr. Tile Pipe:		
180 ft. 6 ft. deep	$0.36	$0.53
570 ft. 6 to 8 ft deep	.46	.66
701 ft. 8 to 10 ft. deep	.72	.84
8-in. Vitr. Tile Pipe:		
7,460 ft. 6 ft. deep	.38	.58
20,130 ft. 6 to 8 ft. deep	.48	.71
20,520 ft. 8 to 10 ft. deep	.73	.91
2,920 ft. 10 to 12 ft. deep	1.00	1.12
1,100 ft. 12 to 14 ft. deep	1.45	1.45
850 ft. 14 to 16 ft. deep	1.82	1.83
10-in. Vitr. Tile Pipe:		
6 ft. deep	.50	.75
840 ft. 6 to 8 ft. deep	.60	.85
1,725 ft. 8 to 10 ft. deep	1.88	.97
520 ft. 10 to 12 ft. deep	1.88	1.19
530 ft. 12 to 14 ft. deep	2.55	1.54
2,800 ft. 14 to 16 ft. deep	1.95	1.91
85 ft. 16 to 18 ft. deep	2.75	2.08
60 ft. 18 to 20 ft. deep	3.00	2.73
12-in. Vitr. Tile Pipe:		
350 ft. 6 ft. deep	.60	.74
1,190 ft. 6 to 8 ft. deep	.82	.86
2,030 ft. 8 to 10 ft. deep	2.00	1.04
950 ft. 10 to 12 ft. deep	2.52	1.26
280 ft. 12 to 14 ft. deep	1.78	1.61
50 ft. 14 to 16 ft. deep	2.10	1.97
60 ft. 16 to 18 ft. deep	2.75	2.16
30 ft. 18 to 20 ft. deep	3.00	2.80
15-in. Vitr. Tile Pipe:		
390 ft. 8 to 10 ft. deep	1.22	1.23
1,650 ft. 10 to 12 ft. deep	1.52	1.45
100 ft. 12 to 14 ft. deep	1.87	1.80
60 ft. 14 to 16 ft. deep	2.37	2.17
18-in. Vitr. Tile Pipe:		
600 ft. 6 ft. deep	.92	1.22
1,630 ft. 6 to 8 ft. deep	1.32	1.36
25 ft. 8 to 10 ft. deep	1.62	1.59
100 ft. 10 to 12 ft. deep	2.00	1.70
70 ft. 12 to 14 ft. deep	2.20	2.05
70 ft. 14 to 16 ft. deep	2.70	2.43
30 ft. 16 to 18 ft. deep	3.00	2.59
20 ft. 18 to 20 ft. deep	4.00	3.24
Y-Branches:		
6 x 18 in.	1.70	.86
6 x 15 in.	1.10	.69
6 x 12 in.	.75	.57
6 x 10 in.	.65	.45
6 x 8 in.	.40	.33
6 x 6 in.	.40	.33
Bends ⅛th 6 in.	.40	.33
Cast-Iron Pipe:		
360 ft. 6 in.	.20	.52
2,160 ft. 8 in.	.25	.62
480 ft. 10 in.	.85	.71
16 in.	1.00	.82
Manholes:		
255 manholes up to 10 ft., ea.	40.00	42.00
100 add. ft. over 10 ft.	3.00	2.00
Drop manholes, ea.	40.00	45.00
Add. ft. over 10 ft.	3.00	2.00
Extra excav. per yd.	1.75	1.00
12 flush tanks, ea.	75.00	125.00
Rock excav. per yd.	3.50	5.00

★Sewage disposal plant, awarded to Leary & Morrison Co., Rochester, at $37,-492. Next 3 lowest bids: Pitt Constr. Co., Pittsburgh, Pa., $38,600; Suburban Eng. Co., New York, $39,900; C. A. Hager, Perrysburg, $41,318.

★**Mt. Morris, N. Y.**—Contract awarded Feb. 26 by Municipal Village Bd. for constructing 9 miles of pipe sewers and disposal works, from plans of C. C. Hopkins, Cutler Bldg., Rochester, to Desiderio & Salter, Rochester, at $37,000.

Rochester, N. Y.—Bd. of Contract and Supply is about to ask bids for constructing Main and Front Sts. sewer tunnel; cost about $145,000.

State Dept. of Health reported to have approved plans for the Brighton sewage disposal plant, to cost about $100,000. Fred T. Elwood, City Engr.

Bradley Beach, N. J.—Local press reports state that bids received Mar. 8 for sewer outlet were returned unopened, and new bids will be called for.

Glen Rock (P. O. Ridgewood), N. J.—Town is considering installation of a sewer system and disposal plant.

★**Allentown, Pa.**—Contract for construction of storm water sewer on Sumner Ave., reported awarded to Geo. H. Hardner, at $11,118.

Carbondale, Pa.—Engineer J. A. Saxe has submitted to Council report on paving and sewer work contemplated during the coming summer, and estimates cost at $103,589.

Kittanning, Pa.—City Council reported to have decided to have plans prepared for sewage disposal plant.

Parkesburg, Pa.—Bids were opened Mar. 8 for the construction of sewer system and treatment plant, from plans of F. H. Shaw, Lancaster, as follows:

Sewer system:—Four lowest bidders: Slack & Slack Co., Baltimore, Md., $22,756; Rundle & Behm, Reading, $22,934; Pollock & Lewis, Downingtown, $25,157; M. & T. E. Farrell, West Chester, $26,001. Engineer's estimate, $25,938.

Unit prices of Slack & Slack, lowest bidders:

1,945 ft. 6-in. pipe	$0.13
12,296 ft. 8-in. pipe	.17
3,205 ft. 10-in. pipe	.22
6,365 ft. 12-in. pipe	.25
400 ft. 6-in. sub-drains	.09
47 ft. 6x6-in. Y-branch	.30
403 ft. 6x8-in. Y-branch	.33
103 ft. 6x10-in. Y-branch	.50
89 ft. 6x12-in. Y-branch	.50
500 ft. deep house connect.	.25
22 ft. drop. connect. to M. H.	1.00
12,813 cu. yds. earth excav., 0-8 ft.	.75
968 cu. yds. earth excav., 8-12 ft.	1.00
41 cu. yds. earth excav., 12 ft. and over	1.25
1,634 cu. yds. rock excav.	2.00
1 M ft. sheeting and bracing	35.00
160 sq. yds. paving around M. H.	1.00
1,155 ft. remov. and replac. pave.	.30
72 ft. 12-in. cast-iron pipe	.50
30,920 lbs. M. H. & L. H. frames and covers	.01¾
335 lbs. wrought-iron M. H. steps	.06
7 8-in. shear gates	5.00
10 cu. yds. extra concrete, 1:3:6.	6.00
326 cu. yds. concrete for M. H. 1:2½:5	6.00
4 lampholes, ea.	1.00

Number days to complete work, 60.

Sewage treatment plant—Four lowest bids: Rundle & Behm, Reading, $6,345; Pollock & Lewis, Downingtown, $6,489; Geo. C. Souders, Lancaster, $7,715; Slack & Slack Co., Baltimore, Md., $8,449. Engineer's estimate, $6,325.

Unit prices of Rundle & Behm, lowest bidders:

Plant	$4,300.00
930 cu. yds. earth excav., 0-10 ft.	.50
200 cu. yds. earth excav., over 10 ft.	1.10
100 cu. yds. rock, excav., 0-10 ft.	2.50
100 cu. yds. rock excav., over 10 ft.	3.00
10 cu. yds. extra 1:2½:5 concrete	6.00
10 cu. yds. extra 1:2:4 concrete	6.50
1,000 lbs. extra reinf. steel	.03½

Number days to complete work, 65.

Pittsburgh, Pa.—Bids desired until Mar. 23 at office of City Controller, for constructing relief sewers in portions of Bayard, Alexander, Freeland, Greenwood and Baltimore Sts. and Hampshire Ave. Robt. Swan, Dir. Dept. Pub. Wks.

York, Pa.—Bids desired until Apr. 2 by C. P. Shreiner, City Clk., for constructing sewage disposal works and pumping station under Contract "A," and furnishing and installing machinery under contract "B," advertised in Engineering Record. C. A. Boyer, Supt. Streets & Pub. Improv. Geo. W. Fuller, Consulting Engr., 170 Bway., New York.

Suffolk, Va.—See "Paving and Road-making."

Huntington, W. Va.—Bids reported desired until Mar. 22 by City Comrs. for constructing sewers in 17th, 22d sts. and various alleys, requiring 10 and 12-in. vitr. sewer tile. A. B. Maupin, City Engr.

Jefferson, Ga.—See "Water Works."

Macon, Ga.—Citizens voted Mar. 9 to issue $30,000 sewer bonds to be used principally to sewer the Vineville branch.

Manning, S. C.—See "Water Works."

Winnsboro, S. C.—See "Water Works."

Palmetto, Fla.—See "Water Works."

Nashville, Tenn.—This city will spend about $20,000 this year for lateral sewers, work to begin in April.

Covington, Ky.—Among the improvements contemplated this year by Dept. Pub. Improv. is the construction of a trunk sewer in Latonia Ave. to cost about $25,000.

Lexington, Ky.—Jas. J. O'Brien, City Clk., writes that bids will be called for shortly for the proposed north main sewer. Cost reported to be $19,000. C. W. Wilkerson, Comr. Pub. Wks.

Lexington, Ky.—City Comrs. reported to have appropriated in its annual report $19,000 to be used for construction of North Main Sewer.

Alliance, O.—Bids desired until Apr. 6 by Director Pub. Service (J. H. Hogan, Clk.) for improving N. Arch Ave. undergrade crossing, requiring approximately 1,530 lin. ft. 42-in. ring brick or segment block storm sewer, 690 lin. ft. 12 to 24-in. storm sewer, 960 lin. ft. 8 and 12-in. sanitary sewer, 1100 lin. ft. 10, 6 and 4-in. water main lowered, 500 sq. yds. new sidewalk, 310 sq. yds. brick pavement, 5000 cu. yds. excavation, streets and alleys, etc.

Chillicothe, O.—H. M. Redd, City Engr., has been directed by Council to prepare plans and estimates for a sewer lateral in Western Ave., a distance of about 2500 ft.

Cincinnati, O.—Bids desired until Mar. 22 by Director Pub. Service (Parke S. Johnson, Secy.) for constructing main and lateral sewers in Montgomery Pike, Belmont and Glenway Aves. and other streets of the former Village of Kennedy Heights.

★**Cleveland, O.**—Contract has been awarded to John Gallagher, for constructing sewer in W. 110th St., at $12,870, and to Wm. McDowell & Sons Co., for sewers in 102d St., Dove and Reno Aves., at $15,600.

Bids desired until Mar. 25 by Commissioner Purchase and Supplies, for constructing sewers in E. 139th St. and Waterloo Rd.; also until Mar. 25 (extension of date from Mar. 18) Dugway Brook sewer from 800 ft. north of Primrose Ave. N. E. to Helena Ave. N. E.

★Contract awarded by Bd. Pub. Service to M. J. McCarthy, 2610 Woodburn Ave., for sewers in ravine east of Reading Rd., at $19,000.

Columbus, O.—Funds have been authorized by City Council for carrying out recommendation of Jerry O'Shaughnessy, Supt., and C. P. Hoover, Chemist in Charge, Sewage Disposal Division, for adapting the original sewage sedimentation tanks to those of the Imhoff type. Plans for same have been prepared under Mr. Hoover's direction by J. J. Morgan. These plans will be reviewed by a board of consulting engineers, consisting of Geo. W. Fuller, of New York; John H. Gregory and Geo. A. Johnson.

Granville, O.—Following are totals of four lowest bids opened Mar. 9 by Village Clerk for constructing sewers and a disposal plant, according to plans by Theo. S. Johnson, of Granville: Chapman & Glover, Lorain, $19,388; Mimmick Constr. Co., Newcastle, Ind., $24,440; Ross Cook Eng. Co., Akron, $24,886; Central Ohio Constr. Co., Cleveland, $25,418.

Following are unit prices of Chapman & Glover, of Lorain, lowest bidders:

45 lin. ft. 6-in. vitr. sewer pipe laid in trench	$0.15
22,653 lin. ft. 8-in. vitr. sewer pipe laid in trench	.18
540 lin. ft. 10-in. vitr. sewer pipe laid in trench	.23
3,130 lin. ft. 12-in. vitr. sewer pipe laid in trench	.30
3,235 lin. ft. cutting and backfilling under 6 ft.	.25
12,073 lin. ft. cutting and backfilling 6 to 8 ft.	.30
6,315 lin. ft. cutting and backfilling 8 to 10 ft.	.35
2,775 lin. ft. cutting and backfilling 10 to 12 ft.	.40
575 lin. ft. cutting and backfilling 18 to 20 ft.	1.00
1 ton c.-i. pipe	28.00
2,000 lin. ft. 4-in. subdrain	.13
100 lin. ft. 6-in. farm tile	.12
13 drop manholes	35.00
59 manholes	33.00
9 flush tanks	52.00
2 lampholes	10.00
10 cu. yds. concrete, plain	8.00
250 cu. yds. rock excav. in trench	2.75

Lowellville, O.—Bids desired until Mar. 29 by C. W. Baker, Village Clk., for constructing sewers in Sewer Dists. Nos. 1 and 2.

Mansfield, O.—Council reported to have approved plans for enlargement of the sewage disposal plant.

Port Clinton, O.—City Council planning construction of trunk line sewer system, costing $83,000.

Salem, O.—Local press reports state bids are desired until Apr. 7 for the purchase of $10,000 bonds for completing the intercepting sanitary sewer system by constructing branches on McKinley and Hawley Aves. and E. High St.

Salem, O.—Bids will be opened by City Clerk Apr. 9 for sanitary sewer in McKinley Ave., to include 2220 ft. 8-in. and 2974 ft. 10-in. pipe, 10 manholes, 1 flush tank, 4058 cu. yds. excav., etc.

Springfield O.—Citizens will vote Apr. 6 on the question of issuing $50,000 bonds for extension of main sewers, and construction of sewage disposal plant.

Attica, Ind.—Bids desired until Mar. 29 by Well Light, City Clk., for 1850 ft. main sewer, consisting of 12 and 15-in. pipe, 15,000 ft. of lateral sewer, 8 and 10-in. pipe, advertised in Engineering Record. Dan R. Young, City Engr.

Indianapolis, Ind.—Bids desired by Bd. Pub. Works Mar. 31 for constructing College Ave. main sewer, length 37,824 ft., size 12 in. to 7 ft. 6 in.; estimated cost $218,000; also 38th St. overflow, length 4376 ft., size 8 ft. 6 in., of concrete, brick or segmental block; estimated cost $90,-000. Chas. A. Brown, Asst. Engr. in Charge of Sewers.

Local press reports state that it has been decided to proceed with construction of sewage disposal plant; cost may reach $2,000,000. B. J. T. Jeup, City Engr.

★**Detroit, Mich.**—H. W. Busch, Secy. Dept. Parks & Boule., writes that contracts for installing a sewer system on Belle Island Park, to include sewers and manholes, treating plant liquid chlorine disinfectant apparatus and pumping plant have been awarded as follows: Sect. A. to Jaynes & Affelt; Sects. B and C, to Geo. R. Cook; Sects. D, E, F, G, H and I, to Wm. Blanck & Co. Total cost about $90,000.

Grand Rapids, Mich.—W. C. Hood, of Ann Arbor, preparing preliminary report for city sewage disposal plant.

Chicago, Ill.—Bids desired until Mar. 26 by Bd. Local Improv. (Edw. J. Glackin, Secy.) for constructing drains in S. Whipple, Flournoy, W. 89th and a number of other streets.

Maywood, Ill.—Bids desired until Apr. 1 by Bd. Local Improv. for 2½ miles concrete and vitr. tile pipe outlet sewer and about 5½ miles of 12 and 15-in. lateral sewers. Robt. E. Williams, Engr., 118 N. La Salle St., Chicago.

★**Ames, Ia.**—Contract reported awarded Mar. 3 to Moore Seig Constr. Co., Waterloo, for sanitary sewers, at $8,879.

Clinton, Ia.—An election will probably soon be held to vote $100,000 for the construction of 2 sewers.

★**Onawa, Ia.** — Contracts have been awarded as follows on bids opened Mar. 9 from plans of Bruce & Standeven, of Omaha, Neb.: For sewer laterals, to Intermountain Bridge & Constr. Co., of Tecumseh, Neb., and disposal plant, to C. B. Reynolds, of Council Bluffs, Ia.

Postville, Ia.—Bids desired by City Clk. about Apr. 1 for constructing sewer systems to cost $25,000. Engineer, Ætna Eng. Bureau, of Chicago, Ill.

St. Paul, Minn.—The Council on Mar. 12 adopted order for construction of the Payne-Edgerton sewer system, at an estimated cost of $44,584.

★Contract reported awarded Mar. 12 for constructing the Front-McKenty sewer system to E. T. Webster, at $53,434.

Council considering construction of sewer on Goodrich Ave. from Finn to Cleveland Ave. Hearing on the Fredericka-Fairmount Ave. system to be held Apr. 3; estimated cost $39,351.

Asst. City Engineer Carroll estimates cost of constructing Snelling-Como Ave. West sewer system at $289,000.

★**Osborne, Kan.**—Contract has been awarded to Eby Constr. Co., Wichita, Mar. 10 for furnishing material and constructing sewer system, at $16,203, to consist of 15,840 ft. 8-in., 3215 ft. 10-in., 3620 ft. 12-in. vitr. sewer tile, 10 flush tanks, 51 standard manholes, septic tank complete, including excavation, concrete by-passes, valves, etc. Next 3 lowest bids: E. M. Scheflow, Baton Rouge, La., $16,570; Tonkawa Constr. Co., Kansas City, Mo., $17,-022; Everett & Burt, $17,135. E. T. Archer & Co., Engrs., New England Bldg., Kansas City, Mo.; S. P. Soult, Mayor.

Bridgeport, Neb.—Bonds have been sold in the sum of $12,000 for sewers and $6,000 for water works extensions.

Anaconda, Mont. — City Council has passed resolutions to create Improvement Dist. 177, providing for construction of sanitary sewer system to cover entire south side; estimated cost, $130,400. Reported bids for the work will be received early in April.

Cleburne, Tex.—Citizens reported to have voted Mar. 6 to issue $180,000 bonds, for the construction of a sewer system.

Walla Walla, Wash.—Residents of Leon, Brown and Ennis Annex additions to city have petitioned City Council to construct a sanitary sewer with sufficient laterals to accommodate entire district bounded by Division and Mill Sts. and Isaacs Ave. and city limits. M. A. Powers, City Clk.

Eugene, Ore.—H. D. Forneri, City Engr., is reported to be preparing plans for a lateral sewer to be constructed between 7th and 8th Aves., bet. Blair Boule. and Van Buren St.

McMinnville, Ore.—Bids reported desired Mar. 23 by C. A. Candler, City Recorder for constructing a trunk sewer system, requiring approximately 2335 lin. ft. 30, 36 and 48 in. monolithic concrete pipe, 6352 lin. ft. 6 to 20 in. vitr. pipe, 23 concrete manholes, etc. R. W. Jones, City Engr.

★**Long Beach, Cal.**—Contract awarded Mar. 3 by Bd. Pub. Wks. for constructing ocean outlet for main outfall sewer, requiring about 1100 ft. 36-in. c. i. pipe, to Mercereau Bridge & Constr. Co., Pacific Electric Bldg., Los Angeles at $29,007. Olmsted & Gillelen, Hollingsworth Bldg., Los Angeles.

Niagara Falls, Ont.—An election will soon be held for constructing Muddy Run trunk sewer, consisting of 4500 ft. 78-in. and 4500 ft. 42-in. pipe sewer and 3050 ft. tunnel. Cost $200,000. F. J. Anderson, City Engr.; W. J. Seymour, City Clk.

Stratford, Ont.—A. B. Manson, City Engr., writes citizens voted Mar. 5 to construct main sewer through town, work to be done by city day labor.

Regina, Sask.—See "Water Works."

BRIDGES.

Items Arranged Geographically

Good Ground, L. I., N. Y.—Election will soon be held to vote on construction of bridge from mainland to ocean beach; cost, about $50,000.

Keyport, N. J.—Plans have been completed by County Road Engineer for constructing drawbridge over creek at West Keyport; cost about $40,000.

Somerville, N. J.—Bids desired until Apr. 2 by County Bd. Freeholders, for constructing 5 bridges.

★**Albany, Pa.**—Wm. H. Hunter, Ch. Engr., Philadelphia & Reading Ry., Philadelphia, writes contracts were awarded on bids opened Mar. 5 to Reading Contr. Co., 622 Court St., Reading, for 2 bridges, one at Albany and the other at Wagontown.

★*Items marked thus give the names of parties awarded contracts.*

Carbondale, Pa.—Plans have been approved by Public Service Comn. for constructing viaduct over tracks of Delaware & Hudson R.R. at Simpson St., for county and railroad company; cost about $75,000.

Meadville, Pa.—Bids reported desired until Mar. 27 by Supervisors of East Mead Township, Meadville, for constructing a concrete bridge.

Reading, Pa.—County Comrs. contemplate constructing bridge at S. 5th St.

Greenville, S. C.—Bids desired until Mar. 30 by John E. Marshall, Mayor, for furnishing material and paving streets, about 20,000 sq. yds., and 5000 sq. yds. sidewalk paving, advertised in Engineering Record. C. P. Ballenger, City Engr.

Miami, Fla.—City Council directed Harrington, Howard & Ash to prepare plans for constructing 2 bridges over Miami River, one at D and one at 12th St.

★**Montgomery, Ala.**—Contract for constructing steel bridge over Tallapoosa River awarded by county to John Roebling & Sons Co., 117 Liberty St., New York City, at about $30,000.

Lake Charles, La.—Bids desired until Apr. 6 by Police Jury at Lake Charles (E. C. House, Clk), for constructing a steel highway swing bridge over Black Bayou on Highway No. 4.

Cambridge, O.—Bids desired until Apr. 6 by County Comrs., Cambridge, for $27,000 bonds, issued for the purpose of constructing bridge over Wills Creek, City of Cambridge. T. C. White, Co. Aud.

Cleveland, O.—Bids desired until Mar. 30 by Commissioner Purchases and Supplies, for mill and shop inspection of steel superstructure of Clark Ave. Viaduct.

Bids desired until Apr. 5 by County Commissioners for constructing a concrete bridge, per Report No. 3490. W. A. Stinchcomb, Co. Surveyor.

Columbus, O.—Bids desired until Apr. 7 by County Comrs. (John Scott, Clk), for constructing Schrock reinforced concrete bridge over Alum Creek, Schrock Rd., Blendon Township.

Delaware, O.—Bids desired until Mar. 30 by County Comrs. for constructing superstructures and substructures of Stratford Bridge, Delaware Township; Hoskins Bridge, Radnor and Thompson Townships; Main Bridge, Teoy Township; Central Ave. Bridge, City of Delaware. W. V. Aldrich, Co. Aud.

Hamilton, O.—Bids reported desired until Mar. 24 by County Commissioners for constructing a bridge. Probable cost $45,000.

Illinois.—Bids desired for constructing bridges in State of Illinois, according to plans on file at office of State Highway Comn., Springfield. (Wm. W. Marr, Engr.), as follows:

Marion, until Mar. 24 at Town Clerk's office, Marion, for 2 reinforced concrete bridges in West Marion Township. Spans, 16 and 25 ft.; roadways, each 20 ft. Engineer's estimate, $830 and $1,085. P. B. Wilson, Co. Supt. Highways, Marion.

Harrison, until Mar. 30, Town Hall, Harrison, 2 reinforced concrete bridges in Harrison Township, Sarver and Sodaman bridges. Spans, 12 and 8 ft.; roadways, 18 and 20 ft. Engineer's estimate for both bridges, $1,465. A. R. Carter, Co. Supt. Highways, Harrison.

Murphysboro, until Mar. 31, at Courthouse, Murphysboro, steel bridge on reinforced concrete abutments, between Grand Tower and Pomona Townships, known as Rattlesnake Ferry Bridge. Span, 180 ft.; roadway, 16 ft. Engineer's estimate, including piles, $13,600; also reinforced concrete bridge in Levan Township, known as Tom Hughes Ford Bridge. Span, 50 ft.; roadway, 16 ft. Engineer's estimate, $2,470. Thos. G. Dunn, Co. Supt. Highways, Gorham.

Marshall, until Apr. 1, at Courthouse, Marshall, reinforced concrete bridge in Dolson Township, known as Slater Bridge. Spans, 2, at 10 ft. Engineer's estimate, $1,950. Zane Arbuckle, Co. Supt. Highways, Marshall.

Monee, Ill.—Bids desired until Mar. 27 by E. P. Heft, Town Clk., Monee, for constructing a reinforced concrete bridge in Monee Township. W. H. Smith, Co. Supt. Highways, Joliet.

Mooseheart, Ill—A concrete bridge is to be constructed over Mill Creek at Mooseheart by State Highway Comn. and county.

★**Superior, Wis.**—E. E. Hedgsvek, County Clk., writes that contract for constructing bridge over Republic River (bids opened Mar. 3) awarded to Ward & Weighton, Sioux City, at $13,000. Next three lowest bidders: Lincoln Constr. Co., Lincoln, Neb., $16,890; Leonard Wilson Co., Lincoln, $17,980; N. M. Stark Co., Des Moines, Ia., $19,130.

Dubuque, Ia.—See "Paving and Road-making."

Dubuque, Ia.—B. H. Burrell, of Dubuque, U. S. Senior Highway Engr., in charge of Iowa Port Road, writes that there will be let some time during April, bridge and viaduct work amounting to approximately $50,000, for the Iowa Port Road. In all about $200,000 road and bridge work will be done in Dubuque Couty this year.

Bids reported desired until Mar. 31 by County Auditor for constructing 75 concrete box culverts on Iowa Post Rd.

Sibley, Ia.—Bids desired until Apr. 7 by County Bd. Superv for furnishing material and constructing 2 steel bridges and 36 cement bridges and culverts. D. W. Clayton, Co. Aud.

Lawrence, Kan.—County Comrs. have engaged Hedrick & Cochrane, Kansas City, Mo., as consulting engineers for a concrete bridge to be constructed across Kansas River. Construction work will not be started until about Aug. 1.

Kearney, Neb.—Bids reported desired until Mar. 26 by L. H. Dean, County Clk., for bridges and bridge repair work during ensuing year.

★**Nelson, Neb.**—Contract has been awarded to Ward & Weighton, Sioux City, Ia., at $13,000 for constructing the Superior State Aid Bridge (bids opened by Co. Comrs. at Nelson, Mar. 3); it will be a reinforced concrete arch bridge with 16-ft. roadway. Next 3 lowest bids: Lincoln Constr. Co., Lincoln, $16,890; Leonard, Wilson Eng. Co., Lincoln, $17,980; N. M. Stark & Co., Des Moines, Ia., $19,130. D. D. Price, State Engr., Lincoln.

E. E. Hedgeock, County Clk., writes that all bids opened Mar. 3 for bridge construction during the year have been rejected. New bids will not be asked.

Fargo, N. D.—Bids desired until Mar. 31 by Bd. Comrs. for $140,000 paving bonds, advertised in Engineering Record. A. R. Watkins, City Aud.

Ypsilanti, N. D.—Bids reported desired until Apr. 6 by County Auditor, for constructing an 80-ft. steel bridge over James River.

Osceola, Ark.—See "Bridges."

★**Davenport, Wash.**—Contract for surfacing 12½ miles road between Reardan and Davenport awarded to Jacobsen-Bade Co., Portland, Ore., at $24,534.

La Conner, Wash.—Following are totals of 4 lowest bids opened by County Comrs. Mar. 2 for constructing 230 ft. draw span, steel construction, near La Conner: L. R. Ellis, Seattle, $21,935; Illinois Steel Bridge Co., Chicago, $22,489; A. C. O'Neil, Seattle, $22,824; T. R. Wood, Seattle, $23,416. Boweman & McCloy, Mutual Life Bldg., Seattle, Consulting Engrs. A. L. Strong, Co. Engr., Mt. Vernon, Wash.

★Contract for constructing the above bridge has been awarded to Illinois Steel Co., Chicago, at following detailed bid:

Draw spans and concrete center piers (lump sum)	$16,490.00
15 M ft. lumber in approaches	280.50
20 M ft. lumber in protection.	400.00
1,000 ft. piling in approaches	210.00
3,000 ft. piling under concr. pier.	810.00
6,000 ft. piling in protection	1,080.00
400 ft. extra piling	96.00
75 cords brush mattress	262.50
150 cu. yds. stone on mattress	360.00
100 cu. yds. extra concrete below elevation	1,600.00
100 cu. yds. extra concrete above elevation	900.00

Seattle, Wash.—We are informed that the citizens voted Mar. 2 to issue $545,000 bonds for constructing bridge at 10th Ave. N. E.; Engineer, F. A. Rapp, City Hall.

Wenatchee, Wash.—County Engineer has been directed to prepare plans for constructing steel bridge over Wenatchee River; cost about $35,000.

Holtville, Cal.—Bids reported desired until Mar. 29 by Bd. Superv. at El Centro, for constructing a reinforced concrete bridge over Alamo River on extension of 6th St. in city of Holtville.

Visalia, Cal.—Bids reported desired until Apr. 7 by Bd. Superv. for constructing a bridge across Cameron Creek in Mooney Grove.

Toronto, Ont.—See "Railroads."

PAVING AND ROADS.

Items Arranged Geographically

★**Massachusetts.**—The State Highway Comn., Boston, has awarded contract to B. Perini & Co., Ashland, for constructing a section of concrete road 2600 ft. long in North Andover, at $7,544.

West Newton, Mass.—Bids desired until Mar. 24 by Geo. E. Stuart, Street Comr., for the following approximate quantities of road surfacing materials required for 1915: 10,000 gals. standard asphalt binder B, 90 per cent quality; 100,000 gals. standard asphalt road oil, No. 6, 65 per cent quality; 70,000 gals. standard asphalt road oil, No. 4, 45 per cent quality; 100,000 gals. tarvia, B quality; 100,000 gals. tarvia, X quality; 50,000 gals. tarite, No. 2 quality; 10,000 gals. tarine, No. 1 quality; 30,000 gals. non-asphaltic road oil.

★**Woonsocket, R. I.**—Contract was awarded Mar. 11 by Chas. D. Southwick, Chmn. Com on Streets and Bridges, for paving a portion of Pond St., to Simpson Bros. Co., Boston, Mass., at $21,995. Next 2 lowest bids: T. Lone, Worcester, Mass., $23,132, and John Cashman & Son Co., Boston, $23,584. Frank H. Mills, City Engr.

Meriden, Conn.—Bids desired until Mar. 23 by W. S. Clark, Supt. Pub. Wks., for paving State St. with wood block and vitr. brick.

Brooklyn, N. Y.—Following are 4 lowest bids opened Mar. 11 by Park Bd., New York (Cabot Ward, Pres.) to furnish and place 250,000 cu. yd. earth fill along Shore Rd. bet. 94th St. and Ft. Hamilton Ave., Boro. Brooklyn, together with all work incidental thereto (a) 250,000 cu. yd., per cu. yd., (b) totals: Rodgers & Hagerty, Inc., 152d St. and Harlem River, Bronx, (a) 18 cts., (b) $45,000; Cullen-Fleming Contr. Co., Inc., 1 Bway., New York, (a) 18½ cts., (b) $46,250; Henry Steers, Inc., 17 Battery Pl., New York, (a) 19.4 cts., (b) $48,500; Norton & Gorman Contr. Co., 303 Douglass St., (a) 19.9 cts., (b) $49,750.

Bids desired until Mar. 24 by L. H. Pounds, Pres., for paving portions of Ave. I, New Lots and 6th Aves., W. 24th, E. 17th, E. 23d and several other streets, requiring approximately 35,500 sq. yds. asphalt pavement, etc.; also laying sidewalks on Chester St. and E. 17th Sts., in all 17,575 sq. ft. cement sidewalks, etc.; also furnishing and delivering the following: 3,100 cu. yds. broken trap rock and 1,900 cu. yds. trap rock screenings; 200,000 gals. tar road surfacing material, 2,200 cu. yds. sand.

Buffalo, N. Y.—Contracts awarded by Council to German Rock Asphalt & Cement Co. (D. S. Morgan, Bldg.) for following asphalt pavements; Abbott Rd. $54,030, Roesch Ave. $47,380, Newfield St. $30,000, London Ave. $24,860, and Eckhert St. $13,660.

★Contracts for paving with asphalt awarded by Comr. Pub. Wks. as follows: Henry P. Burgard Co., 1968 Fillmore Ave., York St. $25,819, Northampton St. $10,330, Kensington Ave. $16,316, Delavan Ave. $30,538; and to German Rock Asphalt & Cement Co., D. S. Morgan Bldg., for Gorton St., at $19,180.

★**Geneva, N. Y.**—Contract for paving with Bessemer block on Castle St. awarded by Bd. Pub. Wks. to Hobart W. Henson, Geneva, at $72,212.

Long Island City, L. I., N. Y.—Following are 4 lowest bids opened by Maurice E. Connolly, Pres. Queens Boro., Mar. 11 for paving Thomson Ave.—(a) 1700 cu. yds. concrete in place, outside railroad franchise are; (b) 9700 sq. yds. improved granite block pavt., outside railroad franchise area, including sand bed and cement grouted joints, 1 yr. maintenance: Wm. J. Scanion Co., 1 Union Sq., New York, (a) 1 ct., (b) $3.15; D. M. O'Connell, Long Island, (a) 1 ct., (b) $3.20; H. J. Mullen Contr. Co., Long Island, (b) $3.30; Clancy & Nuhn Contr. Co., Long Island City, (a) 1 ct., (b) $3.30.

Bids desired until Mar. 24 by Maurice E. Connolly, Boro. Pres., for paving portions of Grand Ave., Prospect and Henry Sts., in all 8550 sq. yds. asphalt pavement, etc.; constructing sidewalks on portions of Sutphin Rd., Boerum Ave., Murray, Union and Bathgate Sts., in all 65,300 sq. ft. cement sidewalk; also flagstone sidewalks on Perry Ave. and Hancock Sts., in all 47,500 sq. ft., etc.; paving with granite block, 1st St., 1,370 sq. yds.

Newfane, N. Y.—Town Bd. voted to spend $11,000 for street improvements.

New York, N. Y.—Lowest bids opened Mar. 5, by Marcus M. Marks, Pres. Boro. Manhattan, for regulating and regrading, W. 155th St., from Bway. to Riverside, together with the widening of Riverside Drive on easterly side of its junction with W. 155th St., was submitted by M. Di Menna Constr. Co., as follows: 2940 cu. yds. earth excav., 80 cts.; 400 cu. yds. rock excav. $1.75; 600 cu. yds. excav. in test trenches, $1; 2700 cu. yds. fill furnished, 1 ct.; 900 lin. ft. new 7-in. granite curb, $1.00; 250 lin. ft. new 5-in. bluestone curb, $1; 350 lin. ft. old bluestone curb reset, 10 cts.; 100 sq. ft. new bluestone flag, 30 cts.; 800 sq. ft. old flag, relaid, 2 cts.; 7000 sq. ft. concrete sidewalk, 10 cts.; 205 cu. yds. dry rubble masonry, 25 cts., 130 cu. yds. Class A concrete, $10; 2500 cu. yds. Class B concrete, $6; 40 lin. ft. vitr. pipe, 12-in. diam., 50 cts.; 20 M ft. timber, $35; 2 receiving basins, standard type, ea., $100; 175 cu. yds. rough Ashlar masonry, $10; 85 cu. yds. finished Ashlar masonry, $13; 400 lin. ft. old granite curb redressed, rejointed and reset, 50 cts.; 16,000 lbs. steel reinforcement bars, 3 cts.; 200 lin. ft. wrought iron fence, $1; 150 lin. ft. wrought iron 4-in. pipe, 50 cts.; total $28,031. Next lowest bids: D. McCarthy, $29,764; DiMenna & DeBlasio, $30,837; W. F. McElroy, $32,013.

All bids have been rejected as opened Mar. 11 by Park Bd. (Cabot Ward, Pres.) for furnishing material and surfacing with asphaltic concrete City Island Rd. from Eastern Boule. to City Island Bridge, Pelham Bay Park, Boro. Bronx, and will be readvertised. Following are 4 lowest bids received (a) 16,790 sq. yd., (b) totals: Municipal Asphalt Co., 1451 Bway., (a) $1.18, (b) $19,812; Asphalt Constr. Co., 208 Bway., (a) $1.24, (b) $20,820; Barker-Bonner, Inc., 18 E. 41st St., (a) $1.30, (b) $21,827; Wm. P. McDonald Constr. Co., 38 Park Row, (a) $1.31, (b) $21,995.

Bids desired until Mar. 25 by F. J. H. Kracke, Comr. Bridges, for furnishing and delivering granite paving blocks to the Williamsburg Bridge.

Bids desired until Mar. 25 (readvertisement) by Park Bd., New York City (Cabot Ward, Pres.) for furnishing material and surfacing with asphaltic concrete the City Island Rd. from Eastern Boule. to City Island Bridge, Pelham Bay Park, Boro. Bronx. Security $10,000.

Niagara Falls, N. Y.—About $128,000 is to be spent for street improvements by Common Council.

Penn Yan, N. Y.—About $24,000 bonds for paving Elm St. have been sold by Bd. Trustees.

Phelps, N. Y.—P. Keefe, Clerk, writes that it is proposed to pave Main St. with brick, including concrete curb and gutter, a distance of about 1½ miles, and bids will be asked this spring. Work is under the Supervision of the State Highway Dept., Albany.

★**Syracuse, N. Y.**—Contract for paving E. Raynor St. with vitr. block awarded by Bd. Contract & Supply to Warner Quinlan Asphalt Co., Syracuse, at $30,239.

★**Utica, N. Y.**—Contract for resurfacing with crushed stone about 7000 sq. yds. on Bank Pl. and Dudley Ave. has been awarded to H. W. Roberts & Co., Utica.

★**Yonkers, N. Y.**—Contract for paving with asphalt block on Yonkers Ave. awarded by Bd. Contract & Supply, Mar. 5 to J. B. Pennell & Co., Yonkers, at $130,320.

Belvidere, N. J.—Bids desired until Mar. 31 by Com. County Bd. Chosen Freeholders, Belvidere, for constructing 2 waterbound macadam roads, the Buttzville-Danville Rd., 5.755 miles long and the Bloomsbury-Still Valley Rd., 2.91 miles long. F. W. Salmon, Co. Engr., Netcong.

Bridgeton, N. J.—Lowest bid opened by Cumberland County Bd. Freeholders for constructing road from Millville to Port Elizabeth was submitted by Richmond & Craig, at $37,150.

Cape May, N. J.—City Council voted to spend $15,000 repaving Washington St.

Chesterfield, N. J.—Bids desired Apr. 3 by Township Com., Chesterfield Township (C. M. Bunting, Chmn.) at Chesterfield Hotel, Chesterfield, for constructing a waterbound broken stone road with a bituminous dressing and gravel sides from end of present stone road in the Village of Chesterfield to the township line between the townships of Chesterfield and North Hanover, a distance of 11,575 ft. Probable cost $20,000. Jas. Logan, Co. Engr., 11 Main St., Mt. Holly.

★**East Orange, N. J.**—Contract for furnishing and applying 255,000 gals. non-asphaltic road oil in the streets of the city awarded to Wm. S. Logan, Newark. Lincoln E. Rowley, City Clk. (bids opened Feb. 22); approximate cost $14,000.

★**Freehold, N. J.**—Contract for paving wings of Norwood Ave. Deal with ameisite and constructing brick gutters has been awarded by Monmouth County Bd. Freeholders, Mar. 10, to Wm. F. McGovern, Trenton, at $23,927.

Glen Ridge, N. J.—Bids desired until Mar. 22 at 8 P. M. by John A. Brown, Boro. Clk., for furnishing and applying approximately 30,000 gals. non-asphaltic road oil on streets of borough during fiscal year.

Irvington, N. J.—Bids desired until Mar. 24 by Bd. Town Comrs. for furnishing f.o.b. cars Lehigh Valley freight terminal, Irvington, 60,000 gal. non-asphaltic road oil. I. J. Casey, Jr., Town Engr.

★**Jersey City, N. J.**—Contract for supplying 50,000 gal. asphaltic road oil awarded to S. Sternkoff, West Hoboken, at 4¾ cts. per gal. Bids opened by County Boulevard Comrs.

Mount Holly, N. J.—Bids desired until Mar. 31 by Bd. Chosen Freeholders (Harry Hawkins, Jr., Clk.) for supplying road oil for the year 1915, advertised in Engineering Record, about 250,000 gals. Jas. Logan, Co. Engr., Mount Holly; Jos. S. Bright, Chmn. Road Com.

Newark, N. J.—Bids were opened Mar. 4 by Bd. of Street and Water Comrs. (Morris R. Sherrerd, Ch. Engr.) for repaving, as follows:

Orange St., from High St. to 1st St., with granite—Lowest bidder, Van Keuren

Long Island City, L. I., N. Y.—Following are four lowest bids opened by Maurice E. Connolly, Pres. Queens Boro., for paving College Point Causeway: (a) D. M. O'Connell, Middle Village, Long Island City, $25,061; (b) Cleveland Trinidad Asphalt Paving Co., New York, $25,173; (c) Queens Plaza Contr. Co., Long Island City, $25,425, and (d) H. J. Mullen Contr. Co., Long Island City, $25,598.

	(a)	(b)	(c)	(d)
1,100 cu. yds. concrete outside railroad franchise area	$0.01	$4.30	$4.95	$0.01
6,300 sq. yds. improved granite block pavement outside railroad franchise area, including sand bed and bituminous grouted joints—1 yrs.' maintenance	3.25	2.54	2.90	3.35
200 cu. yds. concrete within railroad franchise area	.01	4.30	1.00	.01
1,400 sq. yds. improved granite block pavement (within railroad franchise area, including sand bed and bituminous grouted joints, and no maintenance)	3.25	2.54	1.00	3.20
50 sq. yds. stone gutters	.50	.50	.20	.01

★*Items marked thus give the names of parties awarded contracts.*

& Son, Harrison, as follows: 7000 sq. yds. granite on new concrete, $2.99; 2200 sq. yds. granite on old concrete, $2.57; 16 sets 20 x 6-in. 4-cut granite corners, $14.50; 25 ft. 20 x 6-in., 9-ft. radius granite curb, $1.45; 300 ft. 20 x 6-in., 12-ft. radius granite curb, $1.45; 25 ft. 20 x 6-in., 15-ft. radius granite curb, $1.45; 25 ft. 20 x 6-in., 20-ft. radius granite curb, $1.45; 6400 lin. ft. granite curb, $1.09; total, $34,336. Next 3 lowest bids: Newark Paving Co., $34,-765; O'Gara & Maguire, $35,682; Ralph Langiovami, $36,380.

Orange St., from 1st St. to City Line, with wood block—Lowest bidder, John S. Geigers Sons, 80 Hartford St., Newark, as follows: 7000 sq. yds. 4-in. wood block on new concrete, $2.83; 2200 sq. yds. 4-in. wood block on old concrete, $2.30; 5900 lin. ft. 20 x 6-in. granite corners, $1.15; 22 sets 20 x 6-in. granite corners, $15; 25 lin. ft. 20 x 6-in., 9-ft. radius granite corners, $1.45; 200 lin. ft. 20 x 6-in., 12-ft. radius granite corners, $1.45; 25 lin. ft. 20 x 6-in. granite 15-ft. radius corners, $1.45; 25 lin. ft. 20 x 6-in., 20-ft. radius granite corners, $1.45; 300 lin. ft. 18 x 6-in. granite header curb, $1.05; total, $32,699. Next 3 lowest bids: Newark Paving Co., $32,-948; John E. Donovan, $33,775; Van Keuren & Son, $33,857.

Bids desired until Mar. 30 by the Joint Com. Board of Chosen Freeholders, counties of Essex and Hudson, at Newark, for rebuilding fenders of center and rest piers of Jackson St. Bridge, between Jackson St., Newark and 4th St., Harrison.

Sharon, Pa.—Bids desired until Apr. 6 by Claude B. Lartz, Secy. Boro. for furnishing sufficient asphalt to pour 20,000 sq. yds. of brick paving, advertised in Engineering Record.

★**Baltimore, Md.**—Contract for paving with sheet asphalt streets in Northeast and Northwest Baltimore has been awarded by Bd. Awards on Mar. 10 to P. Flanigan & Sons, 120 E. Lexington St., Baltimore, at $94,356.

Lynchburg, Va.—Citizens of Lovington Dist. voted $35,000 bonds for constructing 8 mile turnpike from Shipman to Craig's Shop.

★**Richmond, Va.**—Contract for repair of Cary St. Road awarded to L. Lawson, Norfolk, at $9,368.

Suffolk, Va.—City Council voted $40,000 bonds for pavements and sewers.

Huntington, W. Va.—Bids reported desired until Mar. 22 by City Comrs. for grading, curbing and paving with No. 1 vitr. brick, 5th St., 10th Ave. and an alley. A. B. Maupin, City Engr.

New Martinsville, W. Va.—Bids desired until Mar. 27 by L. E. Lantz, care of Bank of Jacksonburg, Jacksonburg, and opened at courthouse in New Martinsville, for $75,000 Grant Dist. road bonds.

Black Mountain, N. C.—About $10,000 is to be spent for constructing cement sidewalks by Town Council.

Bryson City, N. C.—Bids desired until Apr. 10 by F. E. Bry, Secy., Bd. Highway Comrs., Swain Road Dist., for $100,000 road bonds.

Sanford, N. C.—About $100,000 paving bonds have been sold by Lee County.

Atlanta, Ga.—County Public Wks. Com. and Council Street Com. voted to construct 25 miles streets; cost about $500,000.

About $16,000 is to be spent by county for paving S. Pryor St.

Macon, Ga.—Citizens voted Mar. 9 to issue $120,000 paving bonds to pay city's one-third of the cost of paving several miles of city streets.

Trenton, Ga.—Bids desired until Apr. 6 by County Bd. Comrs. of Roads and Revenues (I. H. Wheeler, Chmn.) for $60,000 road bonds.

Palmetto, Fla.—See "Water Works."

Shreveport, La.—S. A. Dickson, Mayor, writes that it is proposed to pave Howell and Christian Sts. with asphaltic concrete, but the work to be done by city.

Hazlehurst, Miss.—Bids desired May 1 by B. Shelton, Clk. Road Comrs. of Dist. No. 5 for $25,000 bonds.

Tullahoma, Tenn.—About $5,000 is to be spent by city for road building equipments.

Barbourville, Ky.—Citizens Knox County voted $200,000 bonds for constructing road.

Covington, Ky.—Among the improvements contemplated by Bd. Public Improv. during the year is the paving with either brick, bitulithic or asphalt portions of 20th, 19th and Russell Sts. and Euclid and Jefferson Aves.

Louisville, Ky.—Bids desired until Mar. 25 by Bd. Pub. Wks. (R. G. McGrath, Secy.) for improving sidewalks on a number of streets.

Canton, O.—About $40,000 is to be spent by Stark County for road improvements.

Bellefontaine, O.—Bids desired until Mar. 29 at office of County Auditor at Bellefontaine, for grading and macadamizing Anderson-Bell, Pike, Bloomfield, and Pleasant Townships, about 3 miles northwest of Quincy. Section 2 of this pike is estimated to be 11,413 ft. in length and to cost $8,621.

Bucyrus, O.—It is proposed to pave Mary St. with brick about 10,000 sq. yds. and 5,300 lin. ft. stone or concrete curb on 5-in. concrete foundation; cost $20,000. F. L. Niederheiser, City Engr.

Cincinnati, O.—Bids desired until Apr. 9 by County Comrs. for improving Winton Ave., from Springfield Pike to McGilliard's and Copper roads with a macadam pavement, in Springfield Township.

Columbus, O.—Bids desired until Mar. 31 by County Commissioners (John Scott, Clk.) for completing west end of Boehm Rd. improvement, Blendon and Plain townships; macadamizing Clarke Rd., Jefferson Township; improving and macadamizing Doherty Rd., Prairie Township.

Bids desired until Apr. 2 same place as above for improving and macadamizing Norwich Township, Central Rd., Norwich Township, and Souder Rd. Jefferson Township.

★**Delaware, O.**—F. C. Highley, Co. Surveyor, writes that contracts for constructing roads have been awarded as follows (bids opened Mar. 10): Culver Creek Rd., Porter Township, 2.8 miles, to Chas. Perfect and H. W. Davis, Sunbury, at $12,575; Bowers Rd., Brown Township, 1.27 miles, J. L. Edwards, Sunbury, $5,325; Hatten Rd., Brown Township, 1.13 miles, Chas. F. Rodenfels, Delaware, R. D. No. 2, $3,200; Seldom Seed Rd., Liberty Township, 2.74 miles, Chas. Stith, Delaware, $7,475; Ford Rd., Liberty Township, 1.52 miles, J. McNamara, Delaware, $3,990; Concord Rd., Concord Township, R. B. Thomas, Delaware, R. D. No. 5, Sect. "N" $9,650, and Sect. "S" $7,500; Todd St., Kingston Township, 3.4 mile, Edson Linnabary, Galena, and N. C. Farber, 151 Franklin Ave., Columbus, at $15,750.

★**Hamilton, O.**—Contract for paving Hanover St. awarded by Bd. Control to Andrews Asphalt Paving Co., Hamilton, at $32,022.

Lisbon, O.—County Comrs. propose improving about 70 miles of road the coming summer.

Logan, O.—Bids desired until Mar. 23 by Fred. Allen, Village Clk., for 4847 sq. yds. brick No. 2 on Spring St., including curbing, etc.

London, O.—Bids desired until Mar. 26 by J. W. Byers, Village Clk., for paving with vitr. brick, or block, asphalt block or creosoted or Kreodone wood blocks on Walnut St.

★**Newark, O.**—Contract awarded Mar. 4 for paving N. 11th St. to Henderson Bros., Coshocton, at $1.40 per sq. yd. Coshocton block will be used on gravel foundation with cement grout fill; includes excavating; average cut 14 in. C. H. Wells, City Engr.

New Washington, O.—The City Council voted to pave about 1 mile of street including Mansfield, Kibler and Main Sts.

Springfield, O.—Bids desired until Mar. 26 by Chas. E. Ashburner, City Mgr., for furnishing material and paving with sheet asphalt, asphalt block, asphaltic concrete, bitulithic, granite, wood block or brick, a portion of Center St.

Urbana, O.—City Council is about to let contracts for paving N. Main St.; cost $25,000.

City Council will lay about 15,000 yds. of asphalt on Scioto St. this summer.

★**Crown Point, Ind.**—Contract awarded by County Comrs. Mar. 12 for constructing gravel roads to the following contractors: Downey & Portz, Hammond, $14,643; Thos. Lavene, Hammond, $12,-890; Dunigan & Fredericks, Hammond, $7,203; Northern Indiana Constr. Co., East Chicago, $8,469; Ajax Constr. & Eng. Co., Gary (2 roads), $2,684 and $5,390. Edw. Simon, Co. Aud.

Evansville, Ind.—Local press reports state bids desired Mar. 26 by Bd. Pub. Wks. for improving 15 streets.

New Albany, Ind.—E. B. Coolman, County Engr., estimates cost at $17,277 and $11,851 for constructing Budd Rd. and Payne-Koehler Rd. in New Albany Township.

About $37,120 county macadamized road bonds have been sold.

Indiana.—Bids desired by County Commissioners for constructing roads as follows:

Until Mar. 27:

Terre Haute, 2 gravel roads in Lost Creek and Pierson Townships. N. G. Wallace, Co. Aud.

Until Apr. 5:

Greencastle, macadam roads in Jefferson and Clinton Townships and gravel road in Monroe Township. C. L. Airhart, Co. Aud.

Valparaiso, 2 gravel roads in Westchester Township and one in Pleasant Township. C. A. Blachly, Co. Aud.

Until Apr. 6:

Bloomfield, macadamized roads in Stockton and Wright Townships. Geo. E. Kidd, Co. Aud.

Corydon, gravel or macadam road in Spencer Township. J. L. O'Bannon, Co. Aud.

Brazil, sandstone and gravel road in Van Buren Township and stone and gravel road in Dick Johnson Township. Wm. O. Graeser, Co. Aud.

Princeton, stone roads in Patoka, Columbia, White River, Union and Johnson Townships, 8 roads in all. W. T. Roberts, Co. Aud.

Decatur, 2 macadamized roads in Kirkland Township. T. H. Baltzell.

★**Warsaw, Ind.**—Contract for constructing north and south section of Gresso Road in Lake Township awarded to Miles & Shafer, Upland, at $22,847.

★**Detroit, Mich.**—Contract for paving with wood block 80,000 yds. awarded by Council Com. on Streets to Southern Wood Preserving Co., McPherson, Ga., and for 60,000-yd. contract to Kettle River Co., Minneapolis, Minn.

★**Dundee, Mich.**—Contract awarded Mar. 2 by Bd. Village Trust. (Otto C. Spohr, Clk.) to Rice Constr. Co., Wyandotte, at $7,456 for paving Monroe St. requiring 6700 sq. yds. paving and 2700 cu. yds. grading. Geo. Champe, Engr., Toledo.

Chicago, Ill.—Bids reported desired until Bids desired until Mar. 26 by Bd. Local Improv. (Edw. J. Glackin, Secy.) for improving portions of Cullom, Thorndale, Grand and Manistee Aves., N. Mozart, Van Buren and a number of other streets and alleys. Bids desired on vitr. brick, Portland cement concrete, asphalt, creosoted wooden blocks, granite, concrete combined curb and gutter, etc.

El Paso, Ill.—Following are the bids opened Mar. 10, by State Highway Dept., Springfield, for 19,000 ft. brick pavement with concrete base:

★Main St.—I. D. Lain, Bloomington, $31,624 (awarded contract); C. T. McElwee, Peoria, $32,100; Roy Williams, Normal, $31,676; D. A. Meyer, Peoria, $32,180; A. D. Thompson, Peoria, $31,863.

★Sycamore St.—I. D. Lain, Bloomington, $13,286 (awarded contract); C. T. McElwee, Peoria, $13,390; A. D. Thompson, Peoria, $13,438; Roy Williams, Normal, $13,336; D. A. Meyer, Peoria, $13,498.

Highland, Ill.—Bids desired until Mar. 27 by Commissioners of Highways of Helvetia Township at office of Louis Lory, Jr., Town Clk., Highland, for constructing the Arkansas Rd., one-course concretet, 5,800 ft. long, 9 ft. wide, with 3 ft. macadam shoulders.

★**Illinois.**—Following contracts awarded for State Highway work opened by State Highway Dept., Springfield, Mar. 10:

★Bureau County (State Aid), 7920 ft. concrete road, awarded to Grohne Constr. Co., Joliet, at $12,866.

★Monroe County, 1900 ft. concrete road, awarded to Renkel Constr. Co., St. Louis, Mo., $2,300.

Minonk, Ill.—Following are the bids opened Mar. 10, by State Highway Dept., Springfield, for 26,545 sq. yds. brick pavement with concrete base: Main St.—Awarded to I. D. Lain, Bloomington, at $28,243. Other bidders: Gunn Graham & Co., Freeport, $28,743; Roy Williams, Normal, $28,633. I. D. Lain also secured contract for paving Oak St. at $3,147, N. 1st St. at $8,337, and Locust St. at $16,815.

Jefferson, Wis.—About $50,000 is to be spent by city for pavements.

Marinette, Wis.—Bids desired by Bd. Pub. Wks. until Apr. 7 for about 11,000 sq. yds. of concrete pavement. A. L. Hillis, City Engr.

Prairie du Chien, Wis.—Bids desired until Apr. 14 by W. H. Turbitt, City Clk., for furnishing material and laying 9106 sq. yds. permanent pavement on concrete foundation, 3500 ft. curb and gutter and other accessories. Bids desired on the following kinds of pavement. Reinforced concrete; asphaltic concrete; vitr. brick; creosoted block; sandstone and tarvia.

Superior, Wis.—Lowest bids opened by Bd. Public Wks. Mar. 3 for paving Weeks Ave. submitted as follows: With sheet asphalt, F. P. Coughlin, $33,865, and with concrete, Magnus Peterson, $25,083.

Watertown, Wis.—Lowest bid opened Mar. 9 for concrete pavement submitted by Lehman Bros. of Watertown, at $8,704. Arnold Kraeft, City Engr.

Boone, Ia.—Bids desired until Mar. 24 by City Council for paving portions of Marshall, 9th, Lonn, Boone and several other streets. Bids desired for vitr. brick, sheet asphalt, asphaltic concrete and concrete paving materials laid on concrete foundation, in all approximately 49,000 sq. yds. paving, 3300 lin. ft. curbing and resetting 1000 lin. ft. curb. Otto Hile, City Clk.

★**Cedar Rapids, Ia.**—Contract for paving with asphaltic concrete downtown streets awarded to Ford Paving Co., Cedar Rapids, at $50,000.

Dubuque, Ia.—Bids desired by Bd. of Supervisors at the office of John Ingraham, Co. Aud., for grading and surfacing with 15-ft. chert-gravel, Iowa Port Road, from Dyersville to Dubuque, about 20.4 miles; approximate cost $75,000; also same time and place for 75 concrete culverts, 4-ft. span and under 132,500 cu. yds. unclassified excav., 11,000 lin. ft. concrete or all wood guard rail, 650 ft. tile drain, good small shovel and industrial R. R. proposition. Joint U. S. Government and County Fund of $90,000. Work in charge of U. S. Office of Public Roads Engineers. B. H. Burrell, U. S. Senior Highway Engr., in charge at Dubuque.

Forest City, Ia.—Bids desired until Apr. 16 by Town Council for grading, curbing and paving portions of Clark, 6th, J. K and L Sts. Bids desired on the following kinds of pavement; Concrete, asphaltic concrete, No. 1 vitr. paving brick block; vertical fibre paving brick or block; Portland concrete. G. B. Chryst, Town Clk.

★**West Liberty, Ia.**—Irwin Aikins, Town Clk., writes contract was awarded Mar. 3 to Chris. Peterson, Kenosha, Wis. for paving 3rd, 4th, Calhoun and Spencer Sts. on cement foundation about 40,000 sq. yds.; concrete curb and gutter and 20,000 lin. ft. Benton R. Anderson, Engr., West Liberty.

St. Cloud, Minn.—About $44,000 is to be spent for road improvements in Stearns County.

St. Paul, Minn.—City Council voted to pave Smith Ave.; cost about $82,986.

★**Holton, Kan.**—Contract has been awarded by City Council for paving improvements, including about 12,950 sq. yd. paving on 5-in. concrete base, and 4000 lin. ft. combined curb and gutter, from plans of Worley & Black, of Kansas City, Mo., to Jas Stanton, of Leavenporth, Kan., using vitrical fiber; total cost about $24,726.

Manhattan, Kan.—Bids desired by City Comrs. until Mar. 30 for paving 19 blocks, bids on all classes of pavement will be received, the selection to be made at the letting.

★**Columbus, Neb.**—Contract for bitulithic pavements on streets here awarded by city to Wm. Horriban, Des Moines, Ia., at $1.94½ per sq. yd. for total of about $97,000.

Bryan, Tex.—Citizens voted $400,000 bonds for road improvements.

Hagernan, Tex.—Citizens voted $10,000 bonds for road improvements in Dist. No. 1.

Uvalde, Tex.—About $20,000 is to be spent by city for street improvements.

Bellingham, Wash. — County Comrs. voted to hard surface about 5 miles Guide Meridian Road from Laurel to city limits, to be 16 ft. wide and cost about $80,000.

City Council voted to pave roadway between Queen St. and Lake Whatcom, distance of 2 miles.

Bids reported desired until Apr. 5 by W. Wallace, Co. Aud., for constructing 7 miles 2-course concrete highway on the Guide Meridian Rd., known as Highway No. 5. Probable cost $50,000.

Chehalis, Wash.—Bids desired Apr. 5 by I. W. Monfort, Co. Aud., for 7040 sq. yds. of county road, one course concrete, 8 ft. wide; cost $11,000. J. D. Nebilie, Co. Surv.

★**Port Townsend, Wash.** — Contract awarded Mar. 3 for constructing 1½ miles highways to Jas. H. Coyne, Port Townsend, at $8,900. J. D. Lidders, Co. Aud.

North Yakima, Wash.—Bids desired by County Comrs. until Apr. 5 for macadamizing 2 miles of Naches Valley Highway, estimated cost $14,424, and gravel 4 miles road between Toppenish and Wapato, to cost $16,806. O. E. Brashers, Co. Engr.

Ritzville, Wash.—Bids reported desired until Apr. 5 by County Comrs. for constructing Permanent Highway No. 3. Estimated cost $45,000.

Seattle, Wash.—County Engineer A. P. Denton will revise plans for constructing the D. C. Mitchell Rd., and bids will be opened about Apr. 12. Probable cost, $40,000.

Walla Walla, Wash.—M. A. Power, City Clk., writes bids desired Apr. 30 for paving with hard surface, probably bitulithic, 9th, N. 2d, Whitman and S. 3d Sts. and Isaacs Ave.; cost $90,000. Waller Rehorn, Designing Engr., Walla Walla.

Gold Hill, Ore.—Bids reported desired until Apr. 7 by J. R. Stannard, Co. Clk., Gold Hill, for constructing a road from Gold Beach to Baguell's Ferry on south side of Rouge River. J. M. Caughell, Co. Surveyor.

★**Portland, Ore.**—Contract for paving with asphalt Grand Ave., Brooklyn and Karl Sts. awarded by City Council to Warren Constr. Co., Portland, at $23,024.

California.—Bids reported desired until Apr. 5 by State Highway Comn., Sacramento (Austin B. Fletcher, Engr.), for improving State highways as follows: Orange County, about 4 miles; Tulare County, 13¾ miles; Yolo County, 8½, and Yuba County, 3 miles, all concrete pavt. except 5 miles in Yolo County to be cement concrete.

Riverside, Cal.—Bids desired until Mar. 24 by A. B Pilch, Co. Clk., for paving with concrete Route No. 5, Div. A, about 11.8 miles, also same time separate bids for Route No. 12, Div. A, and a portion of Div. B, 8.85 miles.

★**Stockton, Cal.** — Contract awarded Mar. 2 for improving about 8 miles Upper Sacramento Rd. as follows: To Ivey & McCleary, of Lodi, for grading and graveling, $25,042, and to Ivey, McCleary & Holbrook, of Lodi, for bridges and culverts, $10,001. S. A. Carter, Deputy Co. Clk.

STREET CLEANING AND GARBAGE DISPOSAL.

Rochester, N. Y.—Bantel & Hartung reported to have submitted the lowest bid for sprinkling the streets, at 44.72 per cent of the engineer's estimate, which is $93,200.

★*Items marked thus give the names of parties awarded contracts.*

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Items Arranged Geographically

Revetment Work—Wethersfield, Conn.—Lowest bid opened Mar. 1 by Maj. G. B. Pillsbury, Corps Engrs., U. S. A., New London, for bank revetment in the Connecticut River, at Wethersfield, submitted by Olsen & Klavens, 336 61st St., Brooklyn, N. Y., as follows: 13,000 cu. yds. grading, 45 cts. per cu. yd.; 8000 tons riprap revetment, $1.28; total $16,090. Totals of next 3 lowest bids: Daniel O'Connell's Sons, 480 Hampden St., Holyoke, Mass., $16,770; Estate of John Beattie, Leete Island, $17,100; A. C. Sternberg, West Hartford, $19,990.

Pier—Brooklyn, N. Y.—R. A. C. Smith, Cmr. Docks and Ferries, New York, has received a proposition from a steamship company to construct a 1,200 ft. pier at foot of 29th St., South Brooklyn.

Dredging—Buffalo, N. Y.—Bids desired until Apr. 15 by Col. J. G. Warren, Corps Engrs., U. S. A., Buffalo, for dredging in Niagara River, N. Y., advertised in Engineering Record.

Creek Improvement—Jamaica, L. I., N. Y.—Bd. Aldermen of N. Y. City has approved proposed appropriation of $28,295 for constructing a covering for Beaver Creek, where it passes through thickly populated section of South Jamaica.

Dock—Niagara Falls, N. Y.—The Municipal Harbor Bd. (Jos. E. Montague, Pres.) reported to be considering construction of a city dock.

Sea Wall—Bradley Beach, N. J.—Bids desired until Mar. 22, by Chas. F. Burney, Boro. Clk., for constructing about 66 lin. ft. either reinforced concrete or creosoted timber sea wall; about 140 lin. ft. creosoted or plain timber jetty and bulkhead; about 800 lin. ft. w.-i. outlet pipe, with special fitting laid into the ocean from sewage tank, all of said work being located on the beach at easterly end of Ocean Park Ave.

Sea Wall—Freehold, N. J.—Bids reported desired until Mar. 23 for constructing a sea wall at Galilee. John M. Corlies, Dir. Co. Bd. Chosen Freeholders.

★**Dike—Newark, N. J.**—Contract awarded by Essex County Mosquito Extermination Comn., 790 Broad St., Newark, Mar. 15 for constructing a mile or more of dike on Newark Meadows, to J. R. Monahan, Red Bank, at 22½ cts. per lin. ft.

★**Pier Improvement—Philadelphia, Pa.**—Following are lowest bids opened Mar. 8 by Dept. Wharves, Docks and Ferries for pier improvements: Schedule "A," package elevators, piers 38 and 40 South, Link Belt Co., Huntington Park Ave., $15,250 (awarded contract); Schedule "B," electric platform elevators, Southwark Piers, Delaware River, Albro-Clem Elevator Co., 7th and Glenwood Sts., $12,630; Schedule "C," plumbing, Southwark Piers, Flynn & Love, 1506 Sansom St., $18,700 (awarded contract); heating same, Walters, Purks & Mellon, 1835 Ludlow St., $1,187.

★**Retaining Wall—Washington, D. C.**—Contract has been awarded by Gen. Kingman, Ch. Engr. U. S. A., for constructing concrete retaining wall on 16th St. side of Meridian Hill Park, between W and Euclid Sts., to the Boyle-Robertson Co., of Washington, at $23,397.

Drainage Bonds—Wilmington, N. C.—Bids desired by M. F. H. Gouverneur, Secy. County Drainage Dist. No. 1 for $21,000 bonds.

★**Stone for Jetty—Savannah, Ga.**—Contract awarded to R. S. Salos, of Savannah, for placing stone for raising low places in jetty at Savannah Harbor, at $1.99 per ton; total cost $79,600.

★**Drainage Work — Tallahassee, Fla.**—F. C. Elliot, Ch. Drainage Engr., Comr. Everglade Dist. of State of Florida, writes that contract for constructing St. Lucie Canal awarded Mar. 8 to Furst-Clark Co., of Baltimore, Md. Contract contemplates construction of canal from the east shore of Lake Okeechobee to the South Fork of St. Lucie River, and widening and rectification of a portion of the river. About 20,000,000 cu. yds. of earth to be excavated. Canal will be 24 miles long, have a bottom width of 120 ft. and a depth of cut of 14 ft. at the lake end, and gradually widen to 160 ft. on the bottom at the River end; the greatest depth of cut will be 28 ft.

Earthwork—New Orleans, La.—Bids desired until Mar. 25 by Maj. W. G. Caples, Corps. Engrs., U. S. A., Queen and Crescent Bldg., New Orleans, for constructing about 309,000 cu. yds. earthwork in Lower Tensas and Atchfalaya Levee districts.

Canal—New Orleans, La.—Ford, Bacon & Davis, New Orleans, has been engaged by Bd. of Port Comrs. to prepare plans for the river-to-the-lake canal.

Canals—Shrewsbury, La.—Bids desired until Mar. 30 by Bd. Comrs., 4th Jefferson Drainage Dist. (Ernest Arnoult, Secy.) for furnishing material and constructing necessary canals and detailed work for Sub-Drainage Dist No. 2.

Drainage—Dresden, Tenn.—Bids desired until Apr. 8, at Dresden, for following construction in Middle Fork and Spring Creek Drainage and Levee Dist. No. 1, Weakley County, Tenn.; Contract No. 1, 10.25 miles of levee containing 364,000 cu. yds.; Contract No. 2, 8.5 miles of ditch containing 543,000 cu. yds.; 10.25 miles of levee containing 312,000 cu. yds. All work is suitable for dipper dredges. Plans may be secured from Morgan Eng. Co., Memphis.

★**Dredging — Cleveland, O.** — Contract awarded by Bd. Pub. Service to Great Lakes Dredge & Dock Co., for dredging Cuyahoga River at $40,680 (bids opened Feb. 25).

Flood Protection—Mansfield, O.—City Council reported to have passed a resolution, providing for the improvement of the Rockyford and its laterals with main conduit and laterals for flood protection. Work includes a steel and concrete conduit 12½ ft. square, running under city and railroad.

Creek Improvement—Wooster, O.—The Comrs. of Summit and Wayne Counties are reported to be considering dredging and widening of Chippewa Creek, through the 2 counties, at a cost of about $50,000.

Flood Protection—Indianapolis, Ind.—Local press reports state that bids are desired by Bd. Pub. Wks. until Apr. 23 for flood protection work along west bank of White River from Belt R. R. tracks on the south to 14th St. on the north. The work is to be divided into 7 sections. B. J. T. Jeup, City Engr.

Drainage Work—Latimer, Ia.—County Comrs. at Hampton reported considering construction of a drainage ditch, 7 miles long; 2 miles of open and 5 miles of tile ditch, passing through Latimer, to cost about $175,000.

Ditch—Crookston, Minn.—Bids reported desired until Mar. 30 by County Auditor for constructing County Ditch No. 92, requiring about 54,620 cu. yds. excavation. Probable cost $6,554.

Ditch—Le Sueur, Minn.—Bids reported desired until Apr. 2 by County Auditor for constructing a ditch, requiring about 139,165 cu. yds. excavation. Probable cost $16,337; also constructing unfinished portion of side or spur ditch No. 5, will include branches A and B of County Ditch No. 38, about 33,500 cu. yds. earth to be removed. Probable cost $3,850.

Ditch—Bloomfield, Mo.—Bids reported desired until Apr. 7 by R. F. Jones, Clk. County Court, for constructing ditch and bridges and clearing right-of-way of Drainage Dist. No. 17. Sec. 1, to consist of digging portion of ditch to be dug with teams and scrapers, being 9282 yds. Sec. 2 consists of digging part of ditch to be dug by dredge machine, being 147,815 yds. Sec. 3 consists of clearing right-of-way for ditch. Sec. 4 consists of bridges.

Drainage System—Osceola, Ark.—Bids desired until Mar. 24 by Comrs. Grassy Lake and Tyronza Drainage Dist. No. 9 (S. E. Simpson, Chmn.) for constructing 21,600 cu. yds. levee embankment near Marked Tree, 6700 cu. yds. levee embankment and 9000 cu. yds. ditch excavation about 13 miles southwest of Blytheville; 7300 cu. yds. ditch excavation and installation of 310 ft. 12, 18 and 24-in. sewer pipe, with concrete bulkheads amounting to 29 cu. yds. at Osceola; furnishing steel for or erecting complete on concrete abutments 5 steel bridges. Morgan Eng. Co., Engrs., Memphis, Tenn.

Irrigation—Pecos, Tex.—The citizens of Toyah Valley reported to have voted for the organization of Reeves County Irrigation Dist. No. 1; the first work will be toward conserving and increasing the water supply. All the sources of supply will be brought under one head, if possible, and investigation will be made of 2 reservoir sites. If these are practicable, bonds will be voted to build them. W. W. Stewart and T. M. Delaney are among the directors elected.

Dredging—Port Aransas, Tex.—Following are the bids opened Mar. 3 at Galveston, Tex., by Lieut. Col. C. S. Riche, Corps Engrs., for dredging deep water harbor at Port Aransas, Tex., and in the channel from Aransas Pass to Corpus Christi: (a) 408,000 cu. yds. deep water harbor at Port Aransas; (b) 100,000 cu. yds. channel Aransas Pass to Corpus Christi; (c) Total: R. A. Perry, 323 Security Bldg., Galveston, (a) 15.3 cts.; (b) 23 cts.; (c) $85,424; Bowers Southern Dredging Co., Galveston (a) 12.9 cts.; (b) 24.5 cts.; (c) $77,132; Home Dredging Co., Mobile, Ala., (a) 14.5 cts.; (b) 25.8 cts.; (c) $84,960; P. B. Miller, Houston (a) 12.48 cts.; (b) 23.24 cts.; (c) $74,158.

★**Irrigation Work—Fowler, Colo.**—Contract reported awarded by Apishapa Canon Irrigation Co., to Miller, De Hart & Holmes, of Denver, to construct an irrigation system including building a reservoir in Apishapa Canon, a tributary of Arkansas River; capacity 33,000 acre ft.; dam 115 ft. high of rock and earth; total cost, $375,000. Engineers, Field, Fellows & Hindeslider Eng. Co., Denver.

★**Cofferdam — Seattle, Wash.**—Contract awarded Feb. 17 by Maj. J. B. Cavanaugh, Corps. Engrs., U. S. A., Seattle, for excavation, removal of sections of an existing cofferdam and constructing of a new cofferdam at the Puget Sound Lake Washington lock site, Seattle, to Erickson Constr. Co., Downs Blk., Seattle, at $56,777.

Irrigation Work—Sunnyside, Wash.—Bids will soon be asked, according to reports, for irrigation improvements in Drainage Dist. No. 4 to cost $12,000. Specifications call for both cement and vitr. clay pipe. J. O. Greenway, Drainage Engr., Sunnyside.

★**Irrigation — Sunnyside, Wash.**—Contract awarded by U. S. Reclamation Service to Chas. C. Moore & Co., of San Francisco, Cal., for furnishing direct pumping units for pumping plants of Outlook Irrigation Dist., Sunnyside Unit, Yakima Project, at $10,611.

Irrigation Work—Klamath Falls, Ore.—It is reported that Directors of the Modoc Irrigation Dist. will let contract in April for about 650 ft. of metal flume, concrete structures and several concrete laterals.

Canal—Fresno, Cal.—It is reported that the San Joaquin Light & Power Co., of Fresno, which recently completed a large power generating plant at The Forks above Springfield, will soon commence building a canal from a point on the Camp Nelson branch of Tule River, 9 miles above the power house. If built it will necessitate 2 miles of tunneling.

Irrigation Canal—Oakdale, Cal.—Plans reported completed for construction of irrigation canals and laterals here, at a cost of $200,00 for the Oakdale Irrigation Dist.

Irrigation—Redding, Cal.—The County and the U. S. Reclamation Service are about to begin surveys for the Pitt River irrigation system.

By-Pass—Sacramento, Cal.—City Engineer Miller estimates cost of constructing Brytes by-pass and weir on two plans, one to cost $219,500 and the other at $458,800. There is said to be $254,000 available for this work.

★**Irrigation Work—Payson City, Utah.**—Contract has been awarded by U. S. Reclamation Service, Provo, for constructing 49,000 cu. yds. canal excav. and 3670 cu. yds. reinforced concrete work to be located near Payson City, to Wasatch Grading Co., Dooley Blk., Salt Lake City, at $47,084 (bids opened Feb. 24).

Irrigation Work—Payson City, Utah.—Bids desired until Apr. 8 by U. S. Reclamation Service, Provo, Utah, for construction involving about 8000 yds. of canal excav. and 1350 yds. of reinforced concrete, advertised in Engineering Record. Work is located near Payson City.

ELECTRIC RAILWAYS.

Items Arranged Geographically

Worcester, Mass.—Worcester Consolidated Street Ry. Co. is to spend about $75,000 for relaying tracks and placing feed wires underground on Main St.

New York, N. Y.—New bids desired Apr. 9 by Public Service Comn. for First Dist., 154 Nassau St., for construction of Sect. 4 of the Routes 4 and 36, a part of the Bway.-4th Ave. Rapid Transit R.R. in Boro. Manhattan. Work consists of a 2, 4 and 6 track underground railroad northerly under 7th Ave., from 51st St. to 59th St. and easterly under 59th St. to a point 22 ft. west of westerly building line of the 7th Ave. extended.

McConnellsburg, Pa.—Preliminary arrangements are being made by McConnellsburg & Ft. London Ry. Co. to build 10-mile electric railway between McConnellsburg and Ft. London. E. J. Post, McConnellsburg, Pres.

Belleville, Ill.—East St. Louis & Suburban Ry. Co., C. M. Clark, 321 Chestnut St., Philadelphia, Pa., has received franchise from Council for a line on Rock Rd., from city limits to Edgemont.

Harvey, Ill.—Rights of way have been secured by Union Ry. & Power Co. on line to connect South Chicago and Harvey, Ill., and Hammond and Gary, Ind. Capital, $10,000. J. W. Paul, 161 Quincy St., Chicago, Ill., Gen. Mgr.

Peoria, Ill.—Surveys are being made by Allen Engineering Co. for 20-mile line for Peoria & Chillicothe Electric Ry. Co. to connect Peoria, Chillicothe, Mossville and Rome. Henry T. Mallen, Peoria, said to be interested.

Chicago, Peoria, & Quincy Ry. Co. is ready to construct 25-mile line from Peoria to Canton, and is in market for ties, rails and equipment.

Libby, Mont.—Preliminary arrangements are being made by Libby Western Ry. Co. on construction of electric railway to connect Missoula, Kalispell, Libby and Troy, Mont., and Bonner Ferry, Idaho, and Spokane, Wash. Capital, $2,500,000. Thos. A. McCanis, Pres.; P. M. Bernard, Secy.

Miami, Okla.—Oklahoma & Interstate Ry. Co. is reported organized to build an interurban line to connect Miami, Okla., with Commerce, Columbus, Galena and Baxter Springs, Kan.

RAILROADS.

Items Arranged Geographically

Niagara Falls, N. Y.—The Grade Crossing Comn. reported to have decided to ask the New York Central and Lehigh Valley and Erie Railroads to send engineers here to confer with the Comn. on a proposal to eliminate 3 grade crossings this year. The Comn. will soon consider plans for elimination of all dangerous grade crossings in south end business section.

Fairmont, W. Va.—The West Fork R. R. Co., is reported formed, to construct a new railroad 18 miles long from Fairmont through Monongah to Grafton. Incorporators include, Scott C. Lowe, M. A. Fletcher and J. A. Jamison.

New Orleans, La.—The Public Belt Comn. reported to have decided to ask City Council to issue $300,000 bonds to be used to construct belt tracks and connections necessary to serve new cotton warehouse the Dock Board is erecting; also for constructing a bridge over Florida Ave., Canal to complete connection of line in Covent St., to cost about $15,000.

Salmon, Idaho.—It is reported the Gilmore & Pittsburgh Railroad Co. will build a line from Salem to Lewiston. W. N. Bichler, Supt. Armstead, Mont.

Toronto, Ont. — Works Commissioner Harris, in his report to the Works Com., estimates cost at $2,168,765, exclusive of land damages to change levels of the tracks of the C. P. R. and G. T. R. in Wards 6 and 7, in order to eliminate level crossings in that district. The Comr. recommends construction of a steel bridge on concrete abutments and pedestals over railway tracks in North Toronto in connection with the extension of Mt. Pleasant Road. Such a structure will cost about $40,820.

PUBLIC BUILDINGS AND SCHOOLS.

Items Arranged Geographically

Portland, Me.—Bids desired until Apr. 20 by O. Wenderoth, Superv. Archt., Washington, D. C., for the construction, complete (including mechanical equipment, lighting fixtures, and grading), of the steerage barracks and storehouse of the U. S. Quarantine Station at Portland.

Durham, N. H.—New Hampshire State College intends erecting additions costing $135,000. E. T. Fairchild, Pres.

Boston, Mass.—House of the Guardian Angel will erect a chapel, industrial school and power house on S. Huntington Ave. to cost $100,000. E. T. Graham, Archt., 20 Beacon St., Boston.

Chicopee, Mass.—John C. Gray, Supt. of Schools, writes that the proposed addition to the high school will be 3 stories of brick, 60 x 80 ft., and cost $55,000. Architect, Geo. E. Haynes, of Pittsfield.

Fall River, Mass.—Following are four lowest bids received Mar. 2 by City Recorder for erecting a 3 and 4 story brick police station on Bedford St.: Corrigan & Palmer, $89,189; M. McNally Co., $92,665; John Crowe, Inc., $96,082; and Puleston & McDougall, $98,069. Henry Lagasse submitted the lowest for heating and plumbing at $8,200 and $6,175 respectively.

★Contracts for erecting above police station awarded as follows: General contract to Corrigan & Palmer heating and ventilating, also plumbing to Lagasse Bros.

Holyoke, Mass.—Bd. Health reported to be considering erection of an isolation hospital costing $30,000.

★**Boston, Mass.**—Following are unit prices of 4 lowest bids opened Feb. 25 by Boston Transit Comn. (B. Leighton Beal, Secy.) for building Sect. H, Dorchester Tunnel: (a) T. H. Gillespie Co., 50 Church St., New York, $554,750 (awarded contract); (b) H. P. Converse & Co., 88 Broad St., Boston, $561,491; (c) Jere. P. O'Riordan, 1 City Sq., Charlestown, Mass., $581,470; (d) Wm. J. Barry, 431 Ashland St., Roslindale, Mass., $604,350.

	*(a)	(b)	(c)	(d)
87,00 cu. yds. earth excav., open cut method	$3.00	$2.99	$3.18	$3.50
23,000 cu. yds. concrete	8.00	8.83	9.00	8.00
50 cu. yds. cinder concrete	5.00	6.17	10.00	12.00
200 cu. yds. mortar	10.00	14.00	14.00	15.00
30 cu. yds. concrete, with small stone	9.00	11.00	10.00	20.00
200 cu. yds. brick masonry for sewers, etc	16.00	15.00	16.00	20.00
2,200 lin. ft. 8-12 in. vitr. pipe, for underdrain	1.00	.55	.35	1.00
1,300 lin. ft. 8-12 in. vitr. pipe, for invert drain	1.00	.40	.50	1.00
2,300 lin. ft. 6-15 in. vitr. pipe, for sewers, etc	1.00	.55	.80	1.00
1,700 lin. ft. 20-30 in. vitr. pipe, for sewers, etc	2.00	1.25	1.50	2.00
1,300 tons of steel less than 6 lbs. per ft., set in place	9.00	7.26	6.00	10.00
20 tons of steel more than 6 lbs. per ft., set in place	20.00	12.00	20.00	20.00
100 sq. yds. Portland cement mortar, ½ in. thick	.30	.50	1.00	.50
500 cu. yds. grout mixture, neat	14.00	12.47	16.00	20.00
1,000 cu. yds. grout mixture, 1 to 1½	11.00	10.75	11.00	18.00
500 cu. yds. grout mixture, 1 to 4	9.00	5.70	6.00	16.00
60,000 sq. yds. prepared textile and asphalt	.42	.50	.44	.30
Work and risks not covered by other items	2,500.00	2,500.00	1,000.00	5,000.00
300 M ft. sheet piling, 6 in. thick	60.00	49.30	52.00	60.00
200 M ft. sheet piling, 4 in. thick	60.00	49.30	52.00	60.00

★*Items marked thus give the names of parties awarded contracts.*

Worcester, Mass.—City reported to be considering erection of new police headquarters. Address Geo. M. Wright, Mayor.

★Contract for erecting gymnasium at Worcester Academy awarded to Edw. F. Miner Bldg. Co., 25 Foster St.; cost approximately $100,000.

Hartford, Conn.—Bldg. Com. of First School Dist. selected plans of Isaac A. Allen, Jr., 904 Main St., for the Brown School.

Long Island City, L. I., N. Y.—Bids were opened Mar. 15 by C. B. J. Snyder, Supt. School Bldgs., New York, for School 93, Boro. Queens, as follows:

General construction: Harby, Abrons & Melius, Inc., $289,700; H. C. Stowe Constr. Co., $267,630; T. A. Clarke Co., 122 Livingston St., $267,600; J. Kresse Co., $267,800; Morgan Constr. Co., $267,992.

Plumbing and drainage: Lowest bid: Geo. S. Gibson Co., Inc., $16,959.

Holtsville, L. I., N. Y.—Suffolk County Bd. Superv., Riverhead, voted to erect the tuberculosis hospital at Holtsville, at a cost of $50,000.

Lake Placid, N. Y.—Town Hall costing $40,000 is to be erected for use of town of North Elba and village of Lake Placid.

North Brother Island, N. Y.—Bids desired until Mar. 22 by Bd. Health, New York City (S. S. Goldwater, M. D., Pres.), for furnishing material and labor required to erect and complete, together with all necessary alterations and other work incidental thereto, the general contract, plumbing and gas fitting and steam heating of 2 concrete pavilions on the grounds of Riverside Hospital, North Brothers Island, Boro. Bronx.

Olean, N. Y.—Plans being prepared by Mowbray & Uffinger, New York, N. Y., for 2-story fireproof nurses lodge to be erected at the Hospital; cost $30,000.

Rome, N. Y.—Following are four lowest bids opened March 1 by Bd. Mgrs. Rome State Custodial Asylum, for erecting the dormitory building at the said institution: Geo. Baker Long, Worcester, Mass., $88,500; J. G. Growe Constr. Co., Albany, $94,575; Nial Bros. Constr. Co., Troy, $96,375; Wm. F. Falton, Buffalo, $96,947. Heating—four lowest: R. T. Ford Co., Rochester, $18,767; W. B. Armstrong Co., Albany, $19,796; Thos. Breen Co., Syracuse, $19,213; P. J. Sullivan Co., Syracuse, $22,333. Lowest for plumbing was from R. T. Ford Co., Rochester, $9,973.

★**Syracuse, N. Y.**—Contract awarded to O'Brien Constr. Co., 1722 Park St., for erecting parochial school and auditorium, 3 stories, brick, stone and steel, for the Cathedral of the Immaculate Conception. Cost $75,000.

Utica, N. Y.—Plans completed by T. P. Barnett Co., St. Louis, Mo., and Edw. J. Berg, Utica, Assoc. Archts., for St. Elizabeth Hospital to be erected at 761 Genesee St., to cost $200,000. Reported bids for construction are to be asked at once.

Jersey City, N. J.—Reported Co. Bd. Chosen Freeholders is taking steps to erect the new jail which is to cost about $1,000,000.

Newark, N. J.—Resolution passed by Council appropriating $25,000 for a laboratory building at the City Hospital.

New Brunswick, N. J.—Reported bids desired until Apr. 6 by H. G. Parker, Pres. Bd. Educ., for erecting a 3-story and basement high school to cost $125,000. Alex. Merchant, Archt., 363 George St.

Nutley, N. J.—Four lowest bids received for erecting school in southeastern section were: E. M. Waldron & Co., Newark, at $35,689; Essex Constr. Co., Newark, $36,149; P. S. VanKirk, Paterson, $36,494, and A. P. Clark Co., Montclair, $36,980.

Beaver, Pa.—Following are lowest bids received March 6th by Co. Comrs. for erecting the new county court home; Martsolf Bros., Beaver Falls, $105,150, 8 months; Ley Constr. Co., Pittsburgh, $96,846, 10 months; Cook, Anderson & Co., Beaver, $99,542, 12 months.

Clarion, Pa.—F. D. Keefer, Secy. School Bd., writes citizens voted Mar. 9 to issue $35,000 bonds for erecting a school and bids for erection will be received about Apr. 1. W. G. Eckles, Archt., New Castle.

Jerome, Pa.—Bids desired until Apr. 1 by J. I. Steele, Secy. Bd. Directors School Dist. of Conemaugh Township, R. F. D. No. 4, Johnstown, for erecting a 2-story, 8-room school in Jerome.

Lansford, Pa.—School Bd. considering site for $150,000 high school.

Marshalsea, Pa.—Pittsburgh Councilmanic Com. on Charities and Corrections affirmed the ordinance calling for construction of an asylum building at Marshalsea costing $350,000.

★**Meadville, Pa.**—Contract for erecting chemistry building at Allegheny College awarded to Mill Run Lumber Co.; cost about $40,000.

Myerstown, Pa.—Plans completed for a 3-story stone and brick 75 x 150 ft. college building to be erected for Albright College. Cost $90,000.

★**Philadelphia, Pa.**—Contracts in connection with schools, bids for which were opened March 8, have been awarded by Com. on Property Bd. Educ. (Wm. Dick, Secy.) as follows:

★Eighteen - class - room addition to Sharswood School: General contract to P. J. Hurley, 1233 Cherry St., $98,900; heating, S. Faith & Co., 2427 Penna Ave., $13,245; electric work, Cates & Shepard, 1516 Sanson St., $8,794; ventilating, J. P. Donnelly, 938 W. Huntingdon Ave., $1,321; plumbing, Bulman Bros., 2532 N. 5th St., $1,497.

★Six-room addition to Morton School, general contract, F. Roe Searing, Perry Bldg., $27,773; heating, S. Faith & Co., $4,079; plumbing, Bulman Bros., $1,749; electric work, Cates & Shepard, $995; Ventilating, C. E. Monday, 1318 Olive St., $451.

★Thirty-three - class - room elementary school at 56th St. and Kingsessing Ave. General contract, Henry L. Brown, 1714 Sansom St., $279,597 (lowest bidder, not yet awarded); heating, Thompson Bros., 125 N. 5th St., $42,176; plumbing, Cates & Shepard, $19,820; plumbing, N. Connelly, $11,774; ventilating, Bowers Bros., Real Estate Trust Bldg., $3,073.

Pittsburgh, Pa.—Following are four lowest bids opened Mar. 11 by Superv., Washington, D. C., for erecting experiment station at U. S. Bureau of Mines: Geo. B. Wills Co., New York, $257,922; Irwin Leighton, Philadelphia, $264,400; Connors Bros. Co., New York, $289,450; R. E. Moorehead, Pittsburgh, $309,399.

For clearing and excavating for above building, opened at same time, four lowest bidders: H. T. Riffle, $27, 242; John F. Casey Co., Pittsburgh, $29,200; Wm. G. Coston, Pittsburgh, $37,800; Jas. L. Stuart, $38,000.

South Bethlehem, Pa.—A. W. Leh, South Bethlehem, is architect for the $185,000 high school.

Tarentum, Pa.—Citizens voted in favor of issuing $100,000 bonds to erect school in First Ward.

Prince Frederick, Md.—Bids desired until Mar. 27 (readvertisement) by County Bldg. Com. (Thos. Parron, Chmn.) for erecting a 2-story, 70 x 30 x 50 x 50 ft. courthouse. Probable cost $25,000. T. Kent Roberts, Archt., 924 17th St., N. W., Washington, D. C.

Washington, D. C.—Lewis H. Russell, 3916 N. Hampshire Ave., is architect for proposed 3-story and basement brick and limestone addition to Casualty Hospital on Massachusetts Ave. and 7th St. N. E.; cost $40,000. Plans include central heating plant; also electric elevator, mechanical ventilation, roof garden, electric light, fire escapes, fireproof sash, stone trimmings.

Grafton, W. Va.—Press reports state bids desired Apr. 2 by Grafton Independent Dist. Bd. of Educ. for $110,000 school bonds.

Elm Grove, W. Va.—Erection of a new high school costing $125,000 is reported under consideration. Address Mayor.

Lost Creek, W. Va.—Bids desired until Mar. 25 by Bd. Educ. Grant Dist. (Geo. R. Sinclair, Secy.) for erecting a graded and high school at Lost Creek. Stephen W. Ford, Archt., Union Natl. Bank Bldg., Clarksburg.

Williamson, W. Va.—Plans for city building to cost $25,000 to be prepared by Verus T. Ritter, Huntington, W. Va.

Wilkesboro, N. C.—Bids desired until Apr. 6 by D. C. Sebastian, Chmn. Bd. County Comrs., for erecting a County Home building. Hook & Rodgers, Archts., Charlotte.

Macon, Ga.—Citizens voted Mar. 9 to issue $150,000 hospital bonds, to be used to purchase adjoining ground, erect 2 new buildings and pay up any indebtedness on hospital.

Savannah, Ga.—Citizens of Chatham County voted in favor of issuing $50,000 bonds to erect a school

St. Augustine, Fla.—Co. Comrs. considering erecting of court house costing $100,000.

Tampa, Fla.—County School Bd. selected site in Moody Heights section on which to erect a $25,000 building.

Reported plans for the proposed new jail are to be prepared by Pauly Jail Co., St. Louis, Mo.

Greenville, Miss.—Bids reported desired Apr. 1 (extension of date) by J. E. Leppert, Chmn. Bldg. Com., for erecting a high school costing $55,000. R. H. Hunt, Chattanooga, Tenn., Archt.

Jackson, Miss.—City Comn. has passed on first reading $65,000 school improvement bonds.

Senatobia, Miss.—Bids desired until Mar. 22 by Ira G. Allen, Secy. Bd. Trus., Tate County Agricultural School, for erecting a frame dormitory and a brick school. B. Price, Archt., Empire Bldg., Birmingham, Ala.

Vicksburg, Miss.—Bids reported desired until Apr. 5 by Library Bd. for erecting a Carnegie Library, 2 stories, 45 x 80 ft. E. L. Tilton, Archt., 32 Bway., New York.

Washington, Miss.—Bids reported desired until Apr. 3 by Trus. Jefferson College (Gerard Brandon, Secy.) for erecting a 2-story brick dormitory.

Knoxville, Tenn.—The late Col. R. B. Strong has bequeathed $175,000 to Univ. of Tennessee, $30,000 to be used to erect a girls' building, to be known as Sophronia Strong Hall.

The city, in connection with the above will, is to receive $40,000 for erecting a building on Summit Hill to be known as Rush Strong Hall.

Nashville, Tenn.—Reported bids desired until Apr. 6 by Trus. Vanderbilt Univ. for erecting laboratory costing $200,000. Saml. Hannaford & Son, Cincinnati, O., Archts.

Alliance, O.—Hospital bonds amounting to $35,000 have been sold.

Berlin Center, O.—Bids desired until Apr. 8 by Bd. Educ., Berlin Township, Berlin Center (S. M. Rakestraw, Clk.), for furnishing material and erecting a centralized township high school. Frank L. Packard, Archt., New Hayden Bldg., Columbus.

Chillicothe, O.—The County Clerk writes that proposed addition to the court house will be of brick and steel and cost $60,000. Architects Marriott, Allen & Hall, of Columbus.

★**Columbus, O.**—Contract for erecting Studer Ave. School (bids opened Mar. 2) awarded to D. W. McGrath, Columbus, at $182,385. Next three lowest bidders: R. H. Evans & Co., $187,587; J. W. Heckart, $189,500, and A. M. Fry, $189,511. D. Riebel, First Natl. Bank Bldg., Archt.

Dayton, O.—Bids will be received about Apr. 15 for erection of 15 fireproof buildings, all 3 stories, for Bonebrake Theological Seminary, to include power plant and heating plant, cost $1,500,000. Fred J. Hughes & Co., Archts., Room 406, U. B. Bldg.

Lakewood, O.—School bonds amounting to $150,000 have been sold.

Morrall, O.—Bids desired until Apr. 13 by Bd. Educ. (J. H. Barden, Clk.) for furnishing material and erecting a fireproof consolidated and grade school. Bids desired as a whole or separately for the general construction, ventilating and heating, gas fitting and sewerage. Bids on labor and material must be stated separately. Howard & Merriam, Archts., 8 E. Broad St., Columbus.

★**Tiffin, O.**—Contract for erecting U. S. Post Office awarded to Colonial Constr. & Supply Co., Charlottesville, Va., at $71,916.

★**Toledo, O.**—Contract for erecting the Detroit Ave. school awarded to A. Bentley & Sons Co., Toledo, at $160,588, for general contract; heating to Shaw-Kendall Eng. Co., $14,706; plumbing, Eagan Bros., $19,183.

Bids desired until Apr. 23 by O. Wenderoth, Superv. Archt., Washington, D. C., for the extension, remodeling, etc., of U. S. Post Office and Custom House, Toledo.

Wickliffe, O.—Bids reported desired until Mar. 31 by Bd. Educ. (C. C. Jenkins, Clk., Willoughby) for erecting a 2-story and basement grade school at Wickliffe. Probable cost $40,000. Knox & Elliott, Archts., Rockefeller Bldg., Cleveland.

Worthington, O.—Lowest bid received March 4 for erecting the school was submitted by D. E. Henke, Zanesville, at $30,812. Frank L. Packard, Archt., Columbus.

Columbus, Ind.—School Bd. intends erecting a $25,000 building for domestic science and manual training departments.

Hammond, Ind.—Reported bids desired Mar. 29 (readvertisement) by A. J. Dreesen, Secy. Bd. Educ., for erecting a 2-story school costing $75,000. Mac Turner, Archt., 106 Citizens Natl. Bank Bldg.

Indianapolis, Ind.—Bids reported desired until Mar. 30 by Bd. School Comrs. (John E. Cleland, Bus. Dir.) for erecting an addition to School 47; also ventilating and heating. Rubush & Hunter, Archts., Indianapolis.

Rockport, Ind.—County Comrs. considering erecting new court house.

Warsaw, Ind.—Site selected on which to erect $60,000 school.

Munising, Mich.—Bids reported desired until Mar. 22 by S. W. Collins, Secy. Bd. Educ., for erecting a 2-story, 65 x 115 ft. school; probable cost $75,000.

St. Joseph, Mich.—Bids reported desired until Mar. 24 by Holabird & Roche, Archts., 104 S. Michigan Ave., Chicago, for erecting a 3-story and basement, 88 x 33 ft. building for Michigan Children's Home, St. Joseph.

Chicago, Ill.—Bids reported desired until Mar. 24 by Bd. Educ. for erecting Ole A. Thorp School, 3 stories and basement, 211 x 171 ft. A. F. Hussander, Archt., Bd. Educ., 7 S. Dearborn St.

Palestine, Ill.—Plans being prepared by Hewitt & Emerson, 321 Main St., Peoria, for high school.

★**Peoria, Ill.**—Contract has been awarded by School Inspectors Bd. (Anna Rynearson, Secy.) for furnishing material and erecting an addition to Whittier school, Fredonia Ave. and Cooper St., to John Voss Sons, at $45,787 (bids opened Feb. 15).

Plainfield, Ill.—Plans accepted for the new high school as prepared by C. W. Webster, Joliet, and bids for construction will be received at once. Address C. C. Brown, member of School Bd.

Quincy, Ill.—Bids reported desired until Mar. 26 by Bd. Educ. for erecting Jefferson Grade School, 2 stories and basement. Probable cost $95,000. Martin J. Geise, Archt., 800½ Maine St.

★**Madison, Wis.**—Contract for erecting the Fair Oaks School awarded to T. C. McCarthy, at $44,400.

★**Shawano, Wis.**—Contract awarded by Library Bd. to Fred. Werbelow of Shawano, for erecting library from plans of Claude & Starck, Archts., 8 S. Carroll St., Madison.

Cherokee, Ia.—The Secretary, Independent School Dist., writes that the proposed high school will be of brick, 2-story and basement. Architect not yet selected.

Jefferson, Ia.—An election is soon to be held on erecting a new court house. Address Bd. Superv.

Primghar, Ia.—J. B. Stamp, Co. Aud., writes bids are desired about May 10 for the erection of a 3-story fireproof stone court house, 115 x 77 ft.; cost, $150,000. Architects, Smith & Keffer, of Des Moines.

Rock Rapids, Ia.—Smith & Keefer, of Des Moines, engaged to prepare plans for the court house to cost $100,000. Address Bd. Superv.

Sioux City, Ia.—Bd. Superv. reported to be taking steps to erect the court house 10 stories high, and to cost $500,000. Plans being prepared for a 4-story building with 6-story tower, by W. L. Steele, United Bank Bldg.

Thompson, Ia.—Bids desired until Mar. 24 by A. E. Larson, Pres. Bd. Directors Independent School Dist., for erecting a school, including heating, plumbing, etc. Jas. S. Cox, Archt., Estherville, Ia.

Minneapolis, Minn.—Bids reported desired until Mar. 22 by Library Bd. at office of Chapman & Magney, Archts., Essex Bldg., for erecting a branch library at 6th and Emerson Aves. N.; separate bids for plumbing, heating and electric work.

★**Kansas City, Kan.** — Contract for erecting addition to Whittier School awarded to R. P. Fixley, at $71,727 (bids opened Mar. 8). Next three lowest bidders: John E. Anderson & Son, Kansas City, $80,266; Linderman & Thompson, Kansas City, $81,168; Cashner & Leavengood, Rosedale, Kan., $82,437; W. A. Seymour, Clk., Bd. Educ.

Creston, Neb.—Bids desired until Mar. 30 by Bd. Trus. School Dist. No. 33 (T. F. Stevens, Secy.) for erection, heating, plumbing and ventilating of High School. John Latenser & Sons, Archts., Omaha.

★**Sidney, Neb.**—Contract for erecting high school awarded to A. G. Ludwig, Arlington.

South Dakota.—The State Legislature of South Dakota (14th session) which adjourned Mar. 5, appropriated the following sums for public construction to be made during 1915 and 1916:

Plankinton, equipment of gymnasium at Training School $3,000, and addition to Training School, $9,700.

Madison, new building at Normal School, $55,000.

Aberdeen, addition to main building at Normal School $65,000.

Redfield, water supply (tower) at School and Home for the Feeble Minded, $5,000.

Hot Springs, smoke stack at Soldier's Home, Hot Springs, $1,634.

Vermillion, additional boilers and equipment at State University, $10,000; also addition to Chemistry Building, $10,000.

Pierre, improvement of State Capitol Grounds (driveways, walks, trees, etc.), $20,000; grand total, $179,334.

Medina, N. D.—Bids reported desired until Mar. 29 by Guilford School Dist. (Wm. F. Stege, Clk.) for erecting a 2-story and basement, brick and stone ward school. Gilbert R. Horton, Archt., Citizens National Bank Bldg., Jamestown.

Butte, Mont.—School Bd. is considering constructing 2 school additions to cost $75,000 and $100,000 respectively.

Auxvasse, Mo.—Bids reported desired until Mar. 29 by H. Hugo Haines, Archt., Fulton, for erecting a 2-story, 60 x 80 ft. high school for the Bd. of Educ.

Kansas City, Mo.—Bd. Educ. is considering plans for an addition to public library at 9th and Locust Sts.; cost $155,000.

★**St. Louis, Mo.**—Contract for extension and remodeling of the U. S. Custom House, awarded to Wharton Bldg. & Supply Co., 2424 Oriole Ave., at $38,589.

Warrensburg, Mo.—All but two buildings at the State Normal School, are reported destroyed by fire.

Corpus Christi, Tex.—Bids desired until Apr. 19 (not Mar. 19 as previously stated) by O. Wenderoth, Superv. Archt., Washington, D. C., for the construction, complete (including mechanical equipment, except elevator, and approaches) of U. S. Post Office and Courthouse.

★*Items marked thus give the names of parties awarded contracts.*

Dallas, Tex.—School bonds amounting to $400,000 have been sold.

School Bd. will soon ask plans for two high schools, one in Oak Cliff and one in the east end.

Wm. B. Ittner of St. Louis, Mo., engaged to prepare plans for the 2 new high schools and for the Winnetka Ward School.

Lawton, Okla.—Following are four lowest bids received and opened March 6 by Superv. Archt., Washington, D. C., for erecting the U. S. Post Office, (a) limestone, (b) sandstone: Campbell Bldg. Co., of Utah, Salt Lake City, Utah, (a) $120,-500, (b) $134,000; R. S. Moore, Lafayette, Ind., (a) $121,946; Wm. O'Neil & Son Co., Faribault, Minn. (a) $123,340; M. Yeager & Son, Danville, Ill., (a) $123,835; (b) $128,335; Hiram Lloyd Bldg. & Constr. Co., St. Louis, Mo. (b) $133,917; Thos. W. Cissell, Wooster, O., (b) $140,000.

Falls City, Wash.—F. H. Bailey, Principal School Dist. 185, writes bids will be opened about Apr. 1 for erection of proposed school from plans of Stevens & Stevens, of Seattle; it will be 2½ stories high, 120 x 100 ft. of brick, and cost about $34,000.

Washington.—State Senate has passed the following appropriations for buildings: Northern Hospital for Insane, 2 ward buildings, $128,000; auditorium, $30,-000; Institute for Feeble Minded, buildings, central heating plant, etc., $296,000; State School for Blind, administration building, $75,000; State School for Girls building, $60,000; Bellingham Norman School, repairs, improvements, etc., $50,-000; Cheney Normal School, new building, $50,000.

Pendleton, Ore.—Bill signed by Governor appropriating $100,000 for the construction of a new wing to the Eastern Oregon Hospital for Insane. Plans are being prepared by State Archt. at Salem, and it is reported bids for construction will be asked about April 15.

Portland, Ore.—Reported School Bd. has adopted tentative program and group plans for the proposed concrete Franklin High School, as outlined by Supt. of Properties F. A. Naramore. Plans and specifications for the first unit to be erected at E. 42d and Division Sts. are to be prepared immediately; cost $100,000.

Los Angeles, Cal.—Chatworth School bonds amounting to $35,000 have been sold. Address Bd. Educ.

Los Angeles, Cal.—Bids including plans and specifications desired until Mar. 25 by Bd. Educ. (Wm. A. Sheldon, Secy.), for 2 schools, one to be erected on Normandie Ave. school site, 4416 S. Normandie Ave., and one at 71st St. and Compton Ave. Total cost of buildings including architect's fee, ventilating and heating, $25,000 and $20,000 respectively.

San Francisco, Cal.—Plans completed by A. Headman, New Call Bldg. and P. Righetti, Phela Bldg., for pathological ward and garage building to be erected at the San Francisco Hospital at Portrero and 21st Sts. at a cost of about $80,000.

★Contract for excavating and laying foundations at site of new public library in the Civic Center awarded to Contra Costa Constr. Co. at $28,300.

★Contracts for erecting the Mission branch library at 24th and Bartlett Sts. awarded as follows: General contract to C. H. Holt, at $25,240; structural steel, Western Iron Wks., $3,460; terra cotta Gladding, McBean & Co., $9,200; plumbing, S. W. Band, $838; heating, J. Hurley, $3,078; electric work, Decker Co., $1,230; total $43,046.

Stockton, Cal.—Following are three lowest bids received for erecting El Dorado School: Daniels & Green, Stockton, $67,775 and $63,596; R. W. Moller, San Francisco, $65,934 and $60,534; Ernest Green, Lodi, $67,964 and $62,789.

Watts, Cal.—School bonds amounting to $35,000 have been sold. Address Bd. Educ.

Ogden, Utah.—Bd. Educ. considering improvements to the schools costing $200,000.

Burley, Idaho.—Following are four lowest bids received Feb. 25 for erecting the reinforced concrete high school: North Pacific Constr. Co., Pocatello, Idaho, $56,-425; Reynolds & Typlers, Butte, Mont., $65,000; Brandt Constr. Co., Seattle, Wash., $66,755, and Alloway & George, Spokane, Wash., $68,376. R. W. Watt, Secy. Bd. Educ.

Moncton, N. B.—Reported Aberdeen School recently destroyed by fire, is to be rebuilt at a cost of $85,000. Plans being prepared for a 2 or 3 story brick or stone fireproof building. Address Bd. Educ.

PRIVATE BUILDINGS.

Items Arranged Geographically

Boston, Mass.—Plans prepared by C. H. Blackall, 20 Beacon St. for a 6-story mercantile and office building to be erected at 364 Washington St. and to cost $40,000.

Holyoke, Mass.—Plans prepared by G. P. B. Alderman Co., Holyoke, for the 4-story brick and stone Masonic Temple to be erected on Chestnut St.

New Bedford, Mass.—Bids reported desired until Mar. 25 by Murphy, Hindle & Wright, Archts., 146 Westminster St., Providence, for erecting a 1-story and basement, 60 x 22 ft., edifice for the R. C. Church of the Immaculate Conception, Earl and Diman Sts.

Salem, Mass.—Bids reported desired by Lester S. Couch, Archt., 70 Kilby St., Boston, until Mar. 26 (readvertisement) for the erection of a 5-story brick and limestone building, 96 x 138 ft., for the Masonic Temple Assoc.; cost about $150,000.

Hartford, Conn.—Plans prepared for a 4-story brick store and apartment house which Nathan Engleman will erect on State St.

Brooklyn, N. Y.—Plans being prepared by Frank H. Helmle, 190 Montague St., for St. Gregory R. C. Church to be erected at Brooklyn Ave. and St. John Pl., at a cost of $150,000.

★Contract for erecting a picture theatre, cafe and office building, at Howard Ave. and Monroe St., awarded to John Auer & Son, 648 Lexington Ave. Cost $35,000.

Plans being prepared by Shampan & Shampan, 772 Bway., Brooklyn, for a 5-story apartment house to be erected at Ross St. and Bedford Ave. for I. Haft, and cost $85,000.

Buffalo, N. Y.—Plans completed and bids desired by Max G. Beierl, Archt., 424 German-American Bank Bldg., for erecting church, 65 x 78 ft., medina stone and structural steel, at Edward St. and S. Elmwood Ave., for Church of the Immaculate Conception; cost $80,000.

Jamestown, N. Y.—Plans being prepared by Freeburg & Fidler, Jamestown, for an exposition building to be erected at a cost of $185,000.

Plans prepared for a 3-story 50 x 80 ft. fireproof warehouse to be erected for the Ames Transfer Co. at a cost of $25,000.

New York, N. Y.—Plans being prepared by Donn & Barber, 101 Park Ave., for a 10-story brick and limestone building to be erected at Lexington Ave. and 53d St. for the Central Branch Y. W. C. A.; cost $600,000.

Plans being prepared by Horace Trumbauer, 200 5th Ave., for alterations to residence of Cornelius Vanderbilt at 5th Ave. and 51st St.; also 4-story addition to same.

★Contract to erect 9-story brick, limestone and terra cotta apartment house at 149 E. 40th St. for 149 East 40th St. Corporation has been awarded to Bing & Bing, 119 W. 40th St. Estimated cost $150,000. Robt. T. Lyons, Inc., Archt., 110 W. 40th St.

Plans filed for following buildings: Two 5 and 6-story brick, non-fireproof apartment houses to be erected at 180th St. and Audubon Ave. for N. S. & J. Corporation, cost $90,000, Schwartz & Schwartz, Archts., 347 5th Ave.; 5-story brick tenement at 96 Haven Ave. for Filrose Constr. Co., cost $100,000, Gronenberg & Leuchtag, Archts., 303 5th Ave.; 6-story brick, non-fireproof apartment house at St. Nicholas Ave. and 145th St. for Jas. O'Brien, cost $115,000, Moore & Landsiedel, Archts., 148th St. and 3d Ave.; 5-story brick tenement at 178th St. and Prospect Ave. for Jacob Bloom Realty Co., cost $65,000, Goldner & Goldberg, Archts., 391 E. 149th St.; 5-story brick tenement at 183d St. and Andrews Ave. for West 183d St. Bldg. Co., cost $50,000, J. C. Cocker, Archt., 2017 5th Ave.; two 5-story brick tenements at Longfellow Ave. and Westchester Aves. for Absar Realty Co., cost $90,000; Kremborg Archt. Co., Archts., 1029 E. 163d St.; two 5-story brick tenements at Hoe Ave. and Jennings St. for Galveston Bldg. Co., cost $80,000, Sass & Springsteel, Archts, 32 Union Sq.; two 5-story brick tenements at Walton Ave. and 179th St. for Notlaw Realty Co., cost $75,000. And. J. Thomas, Archt., 2526 Webster Ave.

★**Rochester, N. Y.**—Contract for erecting a 4-story 80 x 200 ft. concrete warehouse for Howe & Rogers Co., 80 State St., awarded to Ferro Concrete Constr. Co., Cincinnati, O. Crandall & Strobel, Archts., Rochester.

Newark, N. J.—Plans being prepared by Moyer Eng. & Constr. Co., 375 Fulton St., Brooklyn, for an 8-story reinforced concrete printing and loft building to be erected at Halsey St. and Maiden Lane for Wm. E. Gilmore, Pres. Essex Press; cost $150,000.

Plans being prepared by Edw. V. Warren, 22 Clinton St., for 4-story brick apartment house to be erected by Louis Doblinsky at 694 High St. at a cost of $40,000.

★**Allentown, Pa.**—Contract for alterations and additions to bank building of the Second Natl. Bank awarded to Geo. H. Hardner, Allentown; cost $70,000. Sauer & Hahn, Archts., Philadelphia.

Brookville, Pa.—Erection of a Y. M. C. A. building is contemplated. $27,000 is available.

★**Conshohocken, Pa.**—Contract for erecting 1-story stone church for St. Matthews R. C. congregation awarded to Wm. R. Dougherty, 1608 Sansom St., Philadelphia, at about $100,000. Geo. I. Lovatt, Archt., 416 Walnut St., Philadelphia.

Philadelphia, Pa.—Plans being prepared by Karcher & Smith, Crozier Bldg., for a 5-story brick and concrete warehouse, to be erected at 38th and Powelton Ave.

Reported bids desired by Pennsylvania Warehouse & Safe Deposit Co., 113 S. 3d St., for erecting an 8-story fireproof warehouse at Delaware Ave. and Pine St.

★**State College, Pa.**—Contracts awarded by Mellor & Meigs, Archts., Philadelphia, for erecting 2½-story brick clubhouse for the Phi Gama Delta Fraternity, as follows: Metal casements, Henry Hope & Sons, 103 Park Ave., New York, and general construction, Henry L. Brown, 1714 Samson St., Philadelphia.

Baltimore, Md.—Reported bids desired until Mar. 26 by Blumberg Bros. & Co., Baltimore, for erecting a 6-story steel, timber and brick store and loft building, according to plans by Louis Levi, of Baltimore and Philadelphia, Pa.

Reported bids desired for erecting a theater at 3 to 9 W. North Ave., to cost $100,000. Oliver B. Wight, Archt., Munsey Bldg.

Hagerstown Md.—Steps being taken to erect a branch Y. W. C. A., costing $50,-000.

Washington, D. C.—Plans being prepared by Milburn, Heister & Co., Washington, for a 4-story fireproof addition to building of Potomac Electric Power Co. at 14 and C Sts., N. W.; cost $75,000.

★**Norfolk, Va.**—Contract for erecting 3-story apartment house at 38th and Granby Sts., for C. R. Carver, awarded to Jesse Johnson at about $38,000. H. W. Simpson, Archt., Paul-Gate Greenwood Bldg.

Louisville, Ky.—Athletic Club intends erecting a clubhouse costing $100,000.

Cincinnati, O.—Knights of Columbus, propose erecting a clubhouse on McMillan St., costing $35,000.

★**Columbus, O.**—Reported contract for erecting building for Middle West Supply Co. on E. 5th Ave. awarded to A. F. Mowery, Lancaster; cost $30,000.

Fremont, O.—Masons have selected site on which to erect $50,000 temple.

★**Lakewood, O.**—Contract for erecting Bedford limestone Masonic Temple awarded to J. W. Christford, at $98,570.

Portsmouth, O.—Plans are to be prepared by Arthur Devoss, Portsmouth, for a brick and stone office building, which Whittaker Glessner Co. will erect near their plant.

Franklin, Ind.—Reported bids desired about April 15 for erecting at the Masonic State Home, an administration building costing $100,000. Herbert W. Foltz, Archt., Indianapolis.

Detroit, Mich.—Reported competitive plans are to be asked for the 7-story addition which it is proposed erecting to the Masonic Temple on Lafayette Boule., and Geo. D. Mason, 80 Griswold St. is to prepare specifications for the competition.

Plans are being prepared by W. B. Stratton, Union Trust Bldg., for Regent Theatre, which Regent Theatre Co. will erect on Woodward and Horton Aves., at a cost of $150,000.

Reported Central Methodist Church will spend about $250,000 in improvements to include a church house on Adams Ave., and an additional building on Elizabeth St.

Kenosha, Wis.—New bids desired until Apr. 5 by Bldg. Com., Kenosha Aerie No. 1055, F. O. E. (Leo H. Flasch, Chmn.), at office of Jos. Lindl, Archt., Kenosha, for erecting a club house.

Milwaukee, Wis.—Bids reported desired until Mar. 24 by Anton Piskula, Archt., for erecting a 2-story and basement, 100 x 100 lodge, business and flat building for Leo. M. Gurda, 478 Mitchell St. Probable cost $25,000.

Milwaukee, Wis.—Plans reported prepared for a plant and building which the Wiconsin Telephone Co. intends erecting at a cost of $1,000,000.

Sioux City, Ia.—Reported bids about to be asked for erecting the lodge building at Douglas and 8th Sts., for Lodge No. 112, B. P. O. Elks; cost $70,000.

Austin, Minn.—Bids desired until Mar. 22 by Bd. Water, Electric, Gas and Power Comn. (J. C. Todd, Secy.) for erecting a 1-story and basement office building; also separate bids for plumbing and heating. F. W. Kinney, Archt., Plymouth Bldg., Minneapolis.

Valley City, N. D.—Bids desired until Mar. 25 by Frank White, Chmn. Bldg. Com., for erecting a church and Sunday school building. E. H. McFarland, Archt., Valley City.

Arkansas City, Kan.—The Newman Dry Goods Co. writes that plans will not be completed until July or August for the proposed new building.

Butte, Mont.—Reported steps are being taken by Chicago, Milwaukee & St. Paul Ry. Co. (C. F. Loweth, Ch. Engr., Chicago, Ill.) for erecting a passenger station costing $250,000.

Pine Bluff, Ark.—Masons propose erecting at 2d Ave. and Chestnut St. a temple costing about $40,000.

Seattle, Wash.—Plans being prepared by Warren H. Milner, Arcade Bldg., for a theater and office building which Jas. Q. Clemmer, of the Clemmer Theater, intends erecting near Times Sq., and to cost $1,000,000.

Junction City, Ore.—J. A. Hosher, prop. of the Junction City Hotel recently destroyed by fire, intends erecting a brick and concrete building costing $55,000.

Klamath Falls, Ore.—Reported bids desired Apr. 1 by Houghtaling & Dougan, Henry Bldg., Portland, for erecting a lodge building for the B. P. O. Elks; cost $50,000.

Portland, Ore.—Plans being prepared by Jacobberger & Smith, Bd. Trade Bldg., for 4-story brick and stone apartment house to be erected adjoining the Heilig Theater, by E. A. McGrath, of Portland; cost $50,000.

Plans being prepared by Goodrich & Goodrich, Abington Bldg., for a 3-story reinforced and brick apartment house to cost $50,000.

Ogden, Utah.—Plans being prepared by H. H. Meyers, Kohl Bldg., San Francisco, Cal., for a 7-story, 70 x 200 ft., steel and reinforced concrete apartment house to be erected at Washington and 26th Sts. for the Federal Land & Mortgage Co., to cost $200,000.

Ogden, Utah.—Plans for apartment house to be erected by Federal Land & Mortgage Co. being prepared by Henry H. Myers, Rohl Bldg., San Francisco, Cal.

Pocatello, Idaho.—Sollie, Boyer & Rogers, Pocatello, have prepared plans for a 6-story hotel to be erected here.

Vancouver, B. C.—Plans are being prepared by Somervell & Putnam, London Bldg., for a 3-story reinforced concrete and stone bank and office building to be erected at Pender and Granville Sts. at a cost of $250,000, for the Merchants Bank of Canada.

NEW INDUSTRIAL PLANTS.

See also "Private Buildings."
Items Arranged Geographically

★**Blissville, L. I., N. Y.**—Contract awarded to Turner Constr. Co., 11 Bway., New York, by Standard Oil Co., for erecting a 3-story reinforced concrete 277 x 90 x 65-ft. building at Blissville.

★**Corning, N. Y.**—Contract for erecting 2-story 83 x 70 ft. addition to factory of T. G. Hawkes & Co., awarded to Corning Bldg. Co., Cedar St. and Tioga Ave. Pierce & Bickford, Archts.

Olean, N. Y.—An addition costing $40,-000 is to be erected at the plant of the Vacuum Oil Co.

Allentown, Pa.—Arbogast & Bastian Co. reported will erect a 6-story addition, 150 x 200 ft. to abattoir plant in Allentown.

McKeesport, Pa.—McKeesport Tin Plate Co. intends installing 20 new tin mills. S. Descher & Sons, Farmers Bank Bldg., Pittsburgh, may be able to give further information.

Pittsburgh, Pa.—Franklin K. Lane, Secy. of the Interior, Washington, D. C., has entered into a contract with the Ætna Explosives Co., of New York, to erect a $250,000 plant to handle the invention of Rittman for the manufacture of gasoline, dyestuffs and explosives with bases drawn from petroleum. It is reported that the plant is to be erected in this city.

Jacksonville, Fla.—H. S. Whitcomb, Hotel Mason, it is reported, desires data and estimates on building, equipping and operating a cotton mill.

Memphis, Tenn.—Erection of a cotton mill here costing $500,000 is reported under consideration. T. R. Winfield, Pres. Business Men's Club may be able to give further information.

Plans prepared for a 3-story fireproof plant to be erected for the Shelby County Oil Mill, 450 N. Bellevue Boule. Edw. Tilden, Chicago, Ill., Pres.

Cleveland, O.—Bids desired at once by Elyria Iron & Steel Co., for erecting in Cleveland a one-story brick and steel 1110 x 380-ft. plant, consisting of 4 buildings, and to cost $60,000. Main building to be monitor type, 30 ft. side 50 ft. center. Three smaller buildings for boiler house, etc. One 5-ton crane will be needed. Ernest McGeorge, Leader Bldg., Consulting Engr.

Salem, O.—Plans being prepared for an addition which it is proposed erecting at the plant of the W. H. Mulins Co. on Depot St.

★**Fort Wayne, Ind.**—Contract awarded to Busching & Hagerman, Ft. Wayne, for erecting a 5-story cigar factory at Calhoun and Lewis Sts. for Cooney Bayer; cost $40,000.

Chicago, Ill.—Plans prepared by Paul Gerhardt, 64 W. Randolph St., for a 4 or 5-story, 66 x 450 ft., fireproof, reinforced concrete building for the manufacture and storage of serums and antitoxins which T. E. Murray will erect at 41st St. and Lowe Ave., to cost $150,000.

Texas City, Tex.—Co-operative Cotton Mills Co. reported being organized with Carl Nessler, Pres., P. C. Wadsworth, Secy., and others, for the purpose of erecting cotton mills in Texas, and it is stated the first mill is to be erected in this city. A mill of 10,000 spindles and 250 looms with bleaching, dyeing and finishing machinery, etc. and costing about $300,000 is contemplated.

Cameron, Tex.—A. J. Dossett, Pres. Cameron Compress Co. reported to be contemplating installation of a plant to bleach low grade cotton and cotton linters for absorbents, explosives, mattresses and felts.

★*Items marked thus give the names of parties awarded contracts.*

Spokane, Wash.—Carstens Packing Co. of Tacoma, Wash., will build a hide house, machine shop, glue factory, etc. at the plant of the Empire Packing Co. at a cost of about $100,000.

Modesto, Cal.—Reported Carnation Milk Co., Seattle, Wash., intends erecting a milk condensing plant in this city; cost $200,000.

MISCELLANEOUS.

See also "Hydraulic Construction and River Improvements."

Items Arranged Geographically

★**Subway Station Work—Boston, Mass.**—Contract awarded Mar. 11 by Boston Transit Comn. (B. Leighton Beal, Sec.) to Coleman Bros., Boston, at $12,164, for work at junction of Park and Tremont Sts. in connection with enlargement of Park St. Station. The work will be mainly removal of triangular core of earth, and a part of walls and roof and some columns of present structure and substituting new construction; mainly of reinforced concrete with steel columns and roof beams.

Parkway Work—Boston, Mass.—Bids desired until 12 M. Mar. 22 by Metropolitan Park Comn. (Wm. B. DeLasCasas, Chmn.) for building to subgrade Furnace Brook Parkway, from Quincy Shore Reservation to Hancock St., Quincy work includes 40,000 cu. yds. earth grading, 100,000 cu. yds. filling material to be furnished, 15 M ft. 2 in. spruce plank, 5000 sq. yds. riprap paving. John R. Rablin. Engr.

★**Cement—New York, N. Y.**—Contract awarded Feb. 26, by Col. W. M. Black, Corps, Engrs. U. S. A., New York, for furnishing and delivering 32,000 bbls. American Portland cement, to Alpha Portland Cement Co., Easton, Pa., at $31,250.

Balustrade, New York, N. Y.—Two lowest bids opened Mar. 11 by Park Bd. (Cabot Ward, Pres.) for furnishing material and constructing an artificial granite balustrade on top of the present granite coping on the newly reconstructed speedway bulkhead wall: Pompeian Garden Furniture Co., 221 W. 33d St., $7,250; Louis Wechsler, 1133 Bway., $7,677.

Derrick—Pittsburgh, Pa.—Bids desired until Mar. 23 at office of City Controller, for furnishing and erecting movable stiff leg derrick at Northside Municipal Asphalt Plant. Robt. Swan, Dir. Dept. Pub. Wks.

Retaining Wall, Washington, D. C.—Following are reported to be the 2 lowest bids opened Mar. 3 for a concrete retaining wall on 16th St. side of Meridian Hill Park: Boyle-Robertson Co., of Washington, $23,397, and R. J. Beall, Washington, $23,649.

Floating Cranes—Norfolk, Va.—Bids reported opened by Bureau Yards & Docks, Navy Dept., Washington, D. C., Feb. 27, for a 150-ton floating revolving crane for delivery at the navy yard, Norfolk: (a) price for crane according to plan, (b) according to bidders' specification (each bid also contained certain modifications). Wert Gusto, Schoiden, Holland (b), $380,000; Cleveland Crane & Eng. Co., Wicklife, O. (a), $422,990; Wellman-Seaver-Morgan Co., 50 Church St., New York (a), $323,750; (b) $299,000; Morgan Eng. Co., Alliance, O. (b), $381,985; Shipbuilding & Eng. Co., Haarlem, Holland (a), $400,000; Newmyr & Diamond, New York (a), $439,500; (b) $450,000; Bethlehem Steel Co., Bethlehem, Pa. (a), $353,000.

Electric Light Plant Improv.—Kinston, N. C.—Bids desired until April 6 by Fred I. Sutton, Mayor, for electric light plant improvements, advertised in Engineering Record. Gilbert C. White, Consulting Engr., Charlotte, N. C.

★**Track Material, Etc.—Jacksonville, Fla.**—Contract awarded Mar. 10 by Port Comrs. (F. W. Bruce, Ch. Engr.) for track material, 660 tons rails (70 lb. sections), and 40 tons splice bars, to Penn. Steel Co.; other material still under consideration. Contract also awarded to A. J. Mills to construct embankment and railroad 1300 ft. in length for temporary storage yard.

Stone—New Orleans, La.—Bids desired until Apr. 13 by Maj. Edw. H. Schulz, Corps Engrs., U. S. A., Custom House, New Orleans, for furnishing and delivering about 10,000 cu. yds. stone at South Pass and Southwest Pass, Mississippi River.

Concrete Steps — Cincinnati, O.—Bids desired until Mar. 26 by Director Pub. Service (Parke S. Johnson, Secy.) for improving right-of-way from 3d St. opposite Celestial St. to Martin St. by constructing concrete steps.

Freight Elevators—Chicago, Ill.—Bids desired until Mar. 24 by L. E. McGann, Comr. Pub. Wks., for furnishing, delivering and erecting 5 electric freight elevators with auxiliaries and accessories at the Marshall Blvd. Municipal Plant, W. 31st St. and S. Sacramento Ave.

Steam Plant—Ellensburg, Wash.—City Council reported to have authorized City Engineer to prepare plans for an auxiliary steam plant for the lighting system, to cost $60,000.

Sprinkler System—Seattle, Wash.—Bids reported desired until Mar. 31 by Port of Seattle Comn., Central Bldg. (C. E. Remsberg, Secy.), for installing a dry pipe automatic sprinkler system in the freight shed of Smith's Cove Improvement. Probable cost, $15,000.

Amusement Park—Walla Walla, Wash.—Reported that W. B. McCarthy, and buisness associates of this city, plan expending $100,000 on an amusement park in Wildwood Park, this city.

Tunnel—Salt Lake City, Utah.—L. A. Martin, of the brokerage firm of Martin & Co., Salt Lake City, a promoter of a company about to be formed here to construct a drain, transportation and irrigation tunnel to drain, also facilitate ore handling in the south end of Tintic, writes that bids will be received about May 1 for construction work; total cost about $1,000,000.

Subway—Toronto, Ont.—City Council has approved the action of the Controller, in voting $100,000 to enable the work of widening the North Yonge St. subway to be proceeded with.

Subway—Regina, Sask. — See "Water Works."

Steel, Reinforcing Bars, Etc.—Panama.—Bids desired until Mar. 30 by Maj. F. C. Boggs, Purchasing Officer, Panama Canal, Washington, D. C., for cit. 906 steel reinforcing bars, steel cable, pipe fittings, etc.

Foundation Work—Pearl Harbor, T. H.—Following bids reported opened Feb. 27, by Bureau Yard & Docks, Navy Dept., Washington, D. C., for concrete foundation for three 600 ft. steel towers at the Naval Station, Pearl Harbor: W. N. Concannon Co., Monadnock Bldg., San Francisco, Cal., $10,867, and Henry Monk, Pensacola, Fla., $20,000.

Proposals

For Proposals Advertised see Pages 54 and 55.

WATERWORKS.

Bids Close.		See Eng. Record.
Mar. 22.	Well, Caruthersville, Mo. Adv. Mar. 6.	Mar. 6
Mar. 23.	Contract 123, New York, N. Y. Adv. Feb. 27 to Mar. 6.	Feb. 27
Mar. 23.	Pipe and Fittings, etc., Washington, D. C.	Mar. 13
Mar. 23.	System, Winnsboro, S. C.	Mar. 20
Mar. 24.	Pumping Engine, Perth Amboy, N. J. Adv. Feb. 20.	Feb. 20
Mar. 25.	Pipe, Maywood, Ill.	Mar. 20
Mar. 25.	Pipe, New York, N. Y.	Mar. 20
Mar. 26.	Reinforcing bars for water tunnel, Cleveland, O.	Mar. 20
Mar. 26.	Pipes, Chicago, Ill.	Mar. 20
Mar. 29.	C.-I. Pipe, Lewistown, Mont. Adv. Mar. 20.	Mar. 20
Mar. 29.	Valves and Hydrants, Lewistown, Mont. Adv. Mar. 20.	Mar. 20
Mar. 30.	Pipe, Fittings, etc., Washington, D. C.	Mar. 13
Mar. 31.	Pumping Station, Toledo, O. Adv. Mar. 13.	Mar. 13
Apr. 2.	Pumps, Seattle, Wash.	Mar. 13
Apr. 3.	Intake, well, Etc., Sandusky, O. Adv. Mar. 20.	Mar. 20
May 5.	Centrifugal Pump, Kansas City, Mo. Adv. Mar. 20.	Mar. 20
Apr. 6.	Pump. Station and Pump, Lynchburg, Va. Adv. Mar. 20.	Mar. 20
Apr. 8.	Water Works, McCune, Kan.	Mar. 13
Apr. 13.	Valves, Toronto, Ont. Adv. Feb. 20 to Mar. 6.	Feb. 20
Apr. 15.	Wells, Winona, Minn. Adv. Mar. 13.	Mar. 13
Apr. 19.	Water Works Material, Jefferson, Ga.	Mar. 20

SEWERAGE AND SEWAGE DISPOSAL.

Bids Close.		See Eng. Record.
Mar. 23.	Kinston, N. C. Adv. Feb. 27 to Mar. 13.	Feb. 27
Mar. 23.	McMinnville, Ore.	Mar. 20
Mar. 23.	Pittsburgh, Pa.	Mar. 20
Mar. 23.	Winnsboro, S. C.	Mar. 20
Mar. 25.	Cleveland, O.	Mar. 20
Mar. 25.	Brooklyn, N. Y.	Mar. 20
Mar. 26.	Chicago, Ill.	Mar. 20
Mar. 29.	Phoenix, Ariz.	Mar. 6
Mar. 29.	Huntington Beach, Cal.	Mar. 6
Mar. 29.	Lowellville, O.	Mar. 20
Mar. 29.	Attica, Ind. Adv. Mar. 20.	Mar. 20
Mar. 29.	New Haven, Conn.	Mar. 20
Mar. 31.	Enumclaw, Wash.	Mar. 13
Mar. 31.	Indianapolis, Ind.	Mar. 20
Apr. 1.	Flint, Mich.	Mar. 13
Apr. 1.	Maywood, Ill.	Mar. 20
Apr. 2.	York, Pa. Adv. Mar. 20.	Mar. 20
Apr. 5.	Brainerd, Minn.	Mar. 13
Apr. 6.	Alliance, O.	Mar. 20
Apr. 7.	Fitchburg, Mass. Adv. Mar. 20.	Mar. 20
Apr. 9.	Salem, O.	Mar. 20
Apr. 19.	Jefferson, Ga.	Mar. 20
Apr. 19.	New Orleans, La.	Mar. 6

BRIDGES.

Bids Close.		See Eng. Record.
Mar. 22.	Newton, Kan.	Mar. 13
Mar. 23.	Red Cloud, Neb.	Mar. 6
Mar. 23.	Trenton, N. J.	Mar. 13
Mar. 23.	Crookston, Minn.	Mar. 13
Mar. 24.	Concordia, Kan.	Mar. 13
Mar. 24.	Hamilton, O.	Mar. 20
Mar. 24.	Osceola, Ark	Mar. 20
Mar. 24.	Illinois	Mar. 20
Mar. 25.	Spokane, Wash.	Mar. 13
Mar. 25.	Clinton, Tenn.	Mar. 13
Mar. 26.	Kearney, Neb.	Mar. 20
Mar. 27.	Meadville, Pa.	Mar. 20
Mar. 27.	Monee, Ill.	Mar. 20
Mar. 29.	Holtville, Cal.	Mar. 20
Mar. 30.	Cleveland O.	Mar. 20
Mar. 30.	Delaware O.	Mar. 20
Mar. 30.	Illinois	Mar. 20
Mar. 30.	Newark, N. J.	Mar. 20
Mar. 31.	Frederickton, N. B.	Mar. 6
Mar. 31.	Armstrong Corner, N. B.	Mar. 13
Mar. 31.	Dubuque Ia.	Mar. 20
Mar. 31.	Illinois	Mar. 20
Apr. 1.	Illinois	Mar. 20
Apr. 2.	Somerville N. J.	Mar. 20
Apr. 5.	San Marcial, N. M.	Mar. 13
Apr. 5.	Cleveland O.	Mar. 20
Apr. 6.	Colusa, Cal.	Mar. 13
Apr. 6.	Lake Charles La.	Mar. 20
Apr. 6.	Ypsilanti N. D.	Mar. 20
Apr. 7.	New Hampton, Ia.	Mar. 6
Apr. 7.	Sibley Ia.	Mar. 20
Apr. 7.	Columbus O.	Mar. 20
Apr. 7.	Visalia, Cal.	Mar. 20
Apr. 15.	Tavares, Fla.	Mar. 13

PAVING AND ROADS.

Bids Close.		See Eng. Record.
Mar. 23.	Winona, Minn.	Feb. 27
Mar. 23.	Kinston, N. C. Adv. Feb. 27 to Mar. 13.	Feb. 27
Mar. 23.	Albany, N. Y. Adv. Mar. 6 to 20.	Mar. 6
Mar. 23.	Meriden, Conn. Adv. Mar. 6.	Mar. 6
Mar. 23.	North Bend, Ore.	Mar. 13
Mar. 23.	Rockville, Md.	Mar. 13
Mar. 23.	Terrell, Tex.	Mar. 13
Mar. 23.	Meriden Conn.	Mar. 20
Mar. 23.	Logan, O.	Mar. 20
Mar. 24.	Columbus, Miss	Mar. 6
Mar. 24.	Charleston, W. Va. Adv. Mar. 13. 20.	Mar. 13
Mar. 24.	West Newton Mass.	Mar. 20
Mar. 24.	Irvington N. J.	Mar. 20
Mar. 24.	Boone, Ia.	Mar. 20
Mar. 24.	Long Island City, N. Y.	Mar. 20
Mar. 24.	Brooklyn, N. Y.	Mar. 20
Mar. 24.	Riverside, Cal.	Mar. 20
Mar. 25.	Somerville, N. J.	Mar. 6
Mar. 25.	Oroville, Cal.	Mar. 6
Mar. 25.	Alabama	Mar. 13
Mar. 25.	Spokane, Wash.	Mar. 13
Mar. 25.	Jacksonville, Fla.	Mar. 13
Mar. 25.	New York N. Y.	Mar. 20
Mar. 25.	Louisville Ky.	Mar. 20
Mar. 25.	New York, N. Y.	Mar. 20
Mar. 26.	Evansville. Ind.	Mar. 20
Mar. 26.	Chicago, Ill.	Mar. 20
Mar. 26.	Springfield, O.	Mar. 20
Mar. 26.	London, O.	Mar. 20
Mar. 27.	Indiana	Mar. 20
Mar. 27.	Highland, Ill.	Mar. 20
Mar. 29.	Lansing. Mich.	Mar. 6
Mar. 29.	Seattle, Wash.	Mar. 13
Mar. 29.	Bellefontaine, O.	Mar. 20
Mar. 30.	Toledo, O.	Mar. 13
Mar. 30.	Greenville, S. C. Adv. Mar. 20.	Mar. 20
Mar. 30.	Manhattan, Kan.	Mar. 20
Mar. 30.	Vinton, Ia.	Mar. 20
Mar. 31.	Columbus, O.	Mar. 20
Mar. 31.	Belvidere, N. J.	Mar. 20
Mar. 31.	Mount Holly. N. J. Adv. Mar. 20.	Mar. 20
Apr. 1.	Bloomsburg, Pa.	Mar. 13
Apr. 2.	Ohio	Mar. 13
Apr. 2.	Cincinnati, O.	Mar. 13
Apr. 2.	Columbus, O.	Mar. 20
Apr. 3.	Chesterfield, N. J.	Mar. 20
Apr. 5.	Ephrata, Wash.	Mar. 13
Apr. 5.	Chehalis, Wash.	Mar. 20
Apr. 5.	Ritzville, Wash.	Mar. 20
Apr. 5.	Bellingham, Wash.	Mar. 20
Apr. 5.	Indiana	Mar. 20
Apr. 5.	California.	Mar. 20
Apr. 6.	Spokane, Wash.	Mar. 6
Apr. 6.	Lake Charles, La.	Mar. 13
Apr. 6.	Sharon, Pa. Adv. Mar. 20.	Mar. 20
Apr. 6.	Indiana	Mar. 20
Apr. 7.	Alabama	Mar. 13
Apr. 7.	Gold Hill, Ore.	Mar. 20
Apr. 7.	Marinette, Wis.	Mar. 20
Apr. 9.	Cincinnati, O.	Mar. 20
Apr. 14.	Prairie du Chien, Wis.	Mar. 20
Apr. 15.	Tavares, Fla.	Mar. 13
Apr. 16.	Forest City, Ia.	Mar. 20
Apr. 19.	Alabama	Mar. 13

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Bids Close.		See Eng. Record.
Mar. 22.	Beach Protection, Cape May, N. J. Adv. Mar. 13, 20.	Mar. 13
Mar. 23.	Sea Wall, Freehold, N. J.	Mar. 20
Mar. 24.	Ditch, Slayton, Minn.	Mar. 6
Mar. 24.	Drainage System, Osceola, Ark.	Mar. 20
Mar. 25.	Ditches, Mankato, Minn.	Mar. 13
Mar. 25.	Earth Work, New Orleans, La.	Mar. 20
Mar. 26.	Dredge, Duluth, Minn. Adv. Feb. 27 to Mar. 20.	Feb. 27
Mar. 29.	Dredging, Indian Harbor, Ind.	Mar. 6
Mar. 30	Dredging, Providence, R. I. Ad. Mar. 6 to 20.	Mar. 6
Mar. 30.	Dykes, South Bend, Wash.	Mar. 13
Mar. 30.	Canals, Shrewsbury, La.	Mar. 20
Mar. 30.	Ditch, Crookston, Minn.	Mar. 20
Apr. 2.	Ditch, Le Sueur, Minn.	Mar. 20
Apr. 5.	Power House, Etc., at Dam, Pittsburgh, Pa. Adv. Mar. 13, 20. Ad. Mar. 6 to 20.	Mar. 13
Apr. 7.	Ditch, Bloomfield, Mo.	Mar. 20
Apr. 8.	Irrigation Work, Payson City, Utah Adv. Mar. 13.	Mar. 13
Apr. 8.	Drainage, Dresden, Tenn.	Mar. 20
Apr. 12.	Steel Gates for Locks, Nashville, Tenn. Adv. Mar. 13, 20.	Mar. 13
Apr. 15.	Dredging, Buffalo, N. Y. Adv. Mar. 20.	Mar. 20
Apr. 23.	Flood Protection Work, Indianapolis, Ind.	Mar. 20

PUBLIC BUILDINGS AND SCHOOLS.

Bids Close.		See Eng. Record.
Mar. 22.	Greeley, Colo. Adv. Feb. 20.	Feb. 20
Mar. 22.	Watervliet, N. Y. Adv. Mar. 6, 13.	Mar. 6
Mar. 23.	Willoughby, O.	Feb. 27
Mar. 23.	Des Moines, Ia.	Feb. 20
Mar. 23.	Detroit, Mich.	Mar. 6
Mar. 23.	Wyocena, Wis.	Mar. 13
Mar. 23.	St. Marys, O.	Mar. 13
Mar. 24.	Seattle, Wash.	Mar. 6
Mar. 24.	Chicago, Ill.	Mar. 20
Mar. 24.	St. Joseph, Mich.	Mar. 20
Mar. 24.	Thompson, Ia.	Mar. 20
Mar. 25.	Pendleton, Ore.	Feb 6
Mar. 25.	Mason City, Ia.	Mar. 6
Mar. 25.	New York, N. Y.	Mar. 6
Mar. 25.	Winfield, Kan.	Mar. 13
Mar. 25.	Hamden, Conn.	Mar. 13
Mar. 25.	Rochester, N. Y.	Mar. 13
Mar. 25.	Lost Creek, W. Va.	Mar. 20
Mar. 25.	Los Angeles. Cal.	Mar. 20
Mar. 26.	Delhi, N. Y. Adv. Mar. 13, 20.	Mar. 13
Mar. 26.	Rochester, Pa.	Mar. 13
Mar. 26.	Quincy, Ill.	Mar. 20
Mar. 27.	Worden, Wash.	Mar. 13
Mar. 27.	Prince Frederick, Md.	Mar. 20
Mar. 29.	Smyrna, Del.	Feb 20
Mar. 29.	Dayton, O.	Mar. 6
Mar. 29.	Median, N. D.	Mar. 13
Mar. 29.	Camden, Tenn.	Mar. 13
Mar. 29.	Duluth, Minn.	Mar. 20
Mar. 29.	Medina, N. D.	Mar. 20
Mar. 29.	Auxvasse, Mo.	Mar. 20
Mar. 29.	Hammond, Ind.	Mar. 20
Mar. 30.	Detroit, Mich.	Mar. 6
Mar. 30.	Pierre, S. D.	Mar. 13
Mar. 30.	Creston, Neb.	Mar. 20
Mar. 30.	Indianapolis, Ind.	Mar. 20
Mar. 30.	Hartford, Conn.	Mar. 20
Mar. 31.	Cambridge, O.	Mar. 13
Mar. 31.	Wickliffe, O.	Mar. 20
Apr. 1.	Greenville, Miss.	Mar. 20
Apr. 1.	Jerome, Pa.	Mar. 20
Apr. 2.	Plainfield, N. J. Adv. Feb. 27 to Mar. 6.	Feb. 2.
Apr. 2.	Tontogany, O.	Mar. 13
Apr. 3.	Washington, Miss.	Mar. 20
Apr. 5.	Tuba, Ariz.	Mar. 13
Apr. 5.	Ames, Ia.	Mar. 13
Apr. 5.	Vicksburg, Miss.	Mar. 20
Apr. 6.	Live Oak, Fla.	Feb. 27
Apr. 6.	Ridgeland, S. C.	Mar. 13
Apr. 6.	Edinburg, O.	Mar. 13
Apr. 6.	Wilkesboro, N. C.	Mar. 20
Apr. 6.	New Brunswick, N. J.	Mar. 20
Apr. 6.	Nashville, Tenn.	Mar. 20
Apr. 8.	Berlin Center, O.	Mar. 20
Apr. 12.	Cincinnati, O.	Mar. 13
Apr. 13.	Morrall, O.	Mar. 20
Apr. 19.	Corpus Christi, Tex.	Mar. 20
Apr. 20.	Portland, Me.	Mar. 20
Apr. 23.	Toledo, O.	Mar. 20
June 1.	Harrisburg, Pa.	Mar. 13

PRIVATE BUILDINGS.

Bids Close.		See Eng. Record.
Mar. 23.	Luverne, Minn.	Mar. 13
Mar. 24.	Milwaukee, Wis.	Mar. 20
Mar. 25.	Wilmington, Del.	Jan. 9
Mar. 25.	Valley City, N. D.	Mar. 20
Mar. 25.	Salem, Mass.	Mar. 20
Mar. 25.	New Bedford, Mass.	Mar. 20
Mar. 26.	Baltimore, Md.	Mar. 20
Mar. 29.	East St. Louis, Ill.	Mar. 13
Apr. 1.	Pittsburgh, Pa.	Mar. 13
Apr. 1.	Klamath Falls, Ore.	Mar. 20
Apr. 5.	Kenosha, Wis.	Mar. 20

MISCELLANEOUS.

Bids Close.		See Eng. Record.
Mar. 23.	Derrick, Pittsburgh, Pa.	Mar. 20
Mar. 24.	Lumber, Panama	Mar. 13
Mar. 24.	Freight Elevator, Chicago, Ill.	Mar. 20
Mar. 26.	Repairs to Heating Plant, Ft. Thomas, Ky.	Mar. 13
Mar. 26.	Concrete Steps, Cincinnati, O.	Mar. 20
Mar. 27.	Electric Traveling Crane, Washington, D. C.	Mar. 6
Mar. 29.	Coal Handling Apparatus in Mint, Philadelphia, Pa. Adv. Mar. 6, 13.	Mar. 6
Mar. 30.	Freight Life, St. Louis, Mo.	Mar. 6
Mar. 30.	Elevator, Detroit, Mich.	Mar. 6
Mar. 30.	Garbage Disposal, Norfolk, Va.	Mar. 13
Mar. 30.	Steel Reinforcing Bars, Etc., Panama	Mar. 20
Mar. 31.	Sprinkler System for Freight Shed, Seattle, Wash.	Mar. 20
Apr. 1.	Garbage Disposal, Wilmington, Del. Adv. Feb. 27 to Mar. 20.	Feb. 27
Apr. 3.	Elevator, Pearl City, T. H.	Mar. 6
Apr. 3.	Garbage Plant, Rock Island, Ill.	Mar. 6
Apr. 3.	Boat Hulls, Electric Light Plants, Etc., for Dam, Pittsburgh, Pa. Adv. Mar. 6 to 20.	Mar. 6
Apr. 6.	Wire, Fencing, Etc., Ogden, Utah	Mar. 13
Apr. 6.	Electric Light Plant Improvement, Kinston, N. C. Adv. Mar. 20.	Mar. 20
Apr. 9.	El. Rys., Routes 4 and 36, New York, N. Y.	Mar. 20
Apr. 13.	Stone, New Orleans, La.	Mar. 20.

★*Items marked thus give the names of parties awarded contracts.*

Barrett Specification Roofs

Investigate Roofing Claims!

GRAVEL and slag roofs laid along the lines of the Barrett Specification cover most of the first-class buildings of the country, because the experience of more than 60 years has proven that—

1st They last longer than any other kind.
2nd There is no painting, coating or similar maintenance cost.
3rd Their unit cost per year of service is lower than any other.

Claims regarding roofings should be met with this question: "How many can you refer to who have used say 500 squares of your roofing on a comparatively flat surface for 10 years and bought more?"

Then investigate such claims!

We can supply hundreds of names for this purpose.

Exaggerated statements sometimes sell roofing, because the principles of Barrett Specification Roofs are not well known to the purchaser. Once he understands the long service they give, and the low unit cost, he will have no other kind.

Copies of The Barrett Specification free on request.

Special Note: We advise incorporating in plans the full wording of The Barrett Specification in order to avoid any misunderstanding. If any abbreviated form is desired, however, the following is suggested:

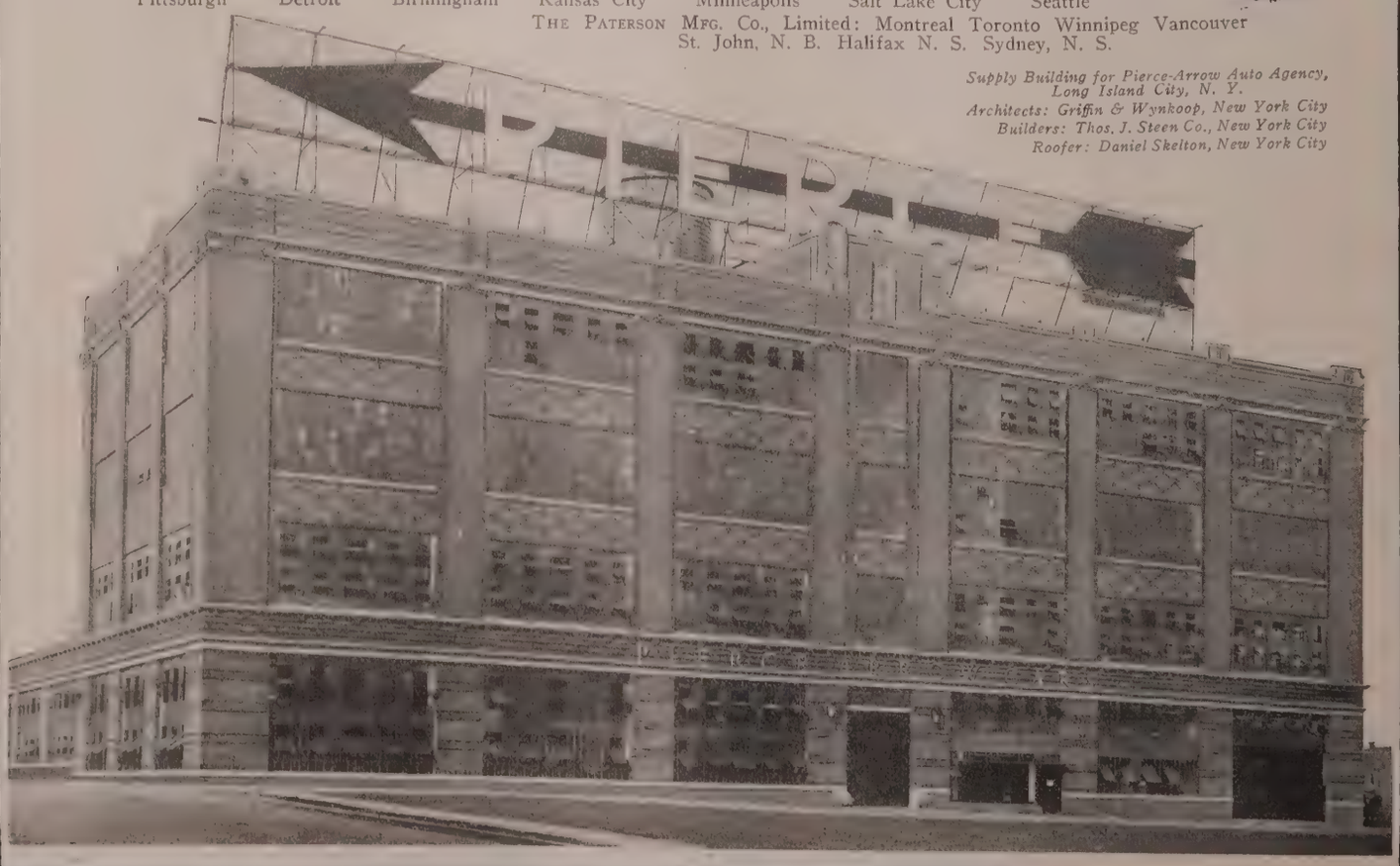
Roofing—Shall be a Barrett Specification Roof, laid as directed in printed Specification, revised August 15, 1911, using the materials specified and subject to the inspection requirement.

BARRETT MANUFACTURING COMPANY

New York Chicago Philadelphia Boston St. Louis Cleveland Cincinnati
Pittsburgh Detroit Birmingham Kansas City Minneapolis Salt Lake City Seattle
The Paterson Mfg. Co., Limited: Montreal Toronto Winnipeg Vancouver
St. John, N. B. Halifax N. S. Sydney, N. S.

TRADE B MARK

Supply Building for Pierce-Arrow Auto Agency, Long Island City, N. Y.
Architects: Griffin & Wynkoop, New York City
Builders: Thos. J. Steen Co., New York City
Roofer: Daniel Skelton, New York City

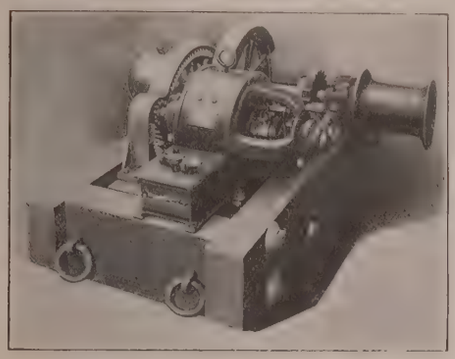


Centrifugal Pump for Small Motor

The Evinrude motor, of the type usually attached to the back of a row boat or small launch, can be directly connected to a centrifugal pump now made by the Evinrude Motor company, Milwaukee, and used to drain small excavations. This was successfully done on work recently completed at the plant of the Milwaukee Western Malting Company. The centrifugal pump is of the vertical-shaft, submerged type, and has a capacity of 55 gal. per minute under a 10-ft. head.

Portable Motor-Driven Winch

The Dobbie Foundry & Machine Company has turned out a new style portable, motor-driven winch to meet conditions arising in the course of construction of the New York subways. This is manufactured in two sizes, the smaller to operate at a rope speed of 152

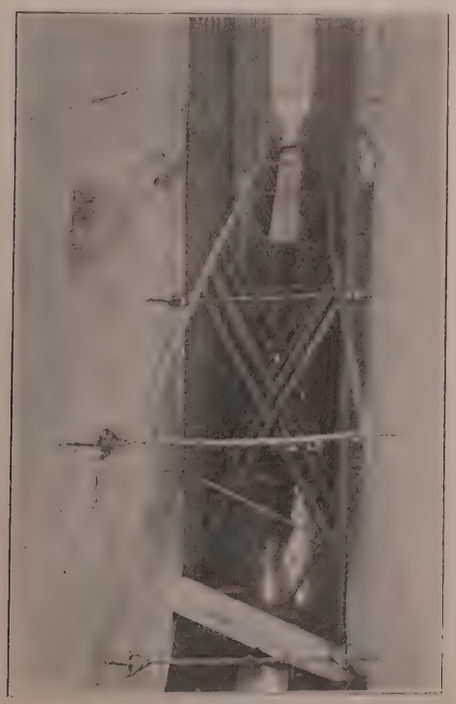


PORTABLE MOTOR-DRIVEN WINCH

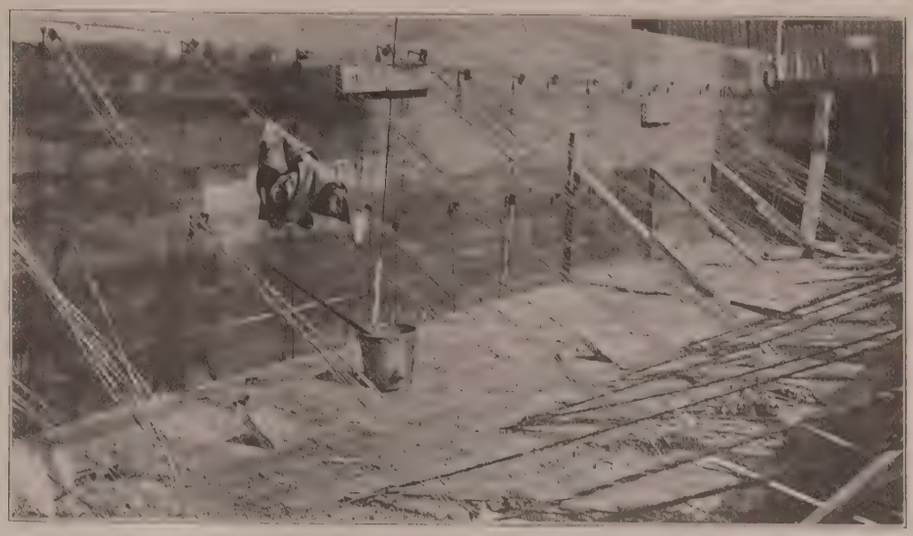
ft. per min. and the larger at 178 ft. per min. Westinghouse, compound-wound, type SK, motors of 5 and 7½ hp respectively are used to drive them. Current is obtained from the 550-volt trolley circuit. The equipments are said to be very light, compact and easily portable.

New Form Anchorage Used on Seneca Falls Dam

The form tie illustrated herewith combines the advantages of the tie-rod with two sleeve-nuts inside of the form with those of the old wire tie. The wire twist for the Johnson form anchorage, as this device is known, is cheap



FORM TIE TIGHTENED FROM INSIDE



ANCHORAGE IN PREVIOUSLY LAID CONCRETE FOR WIDE FORM SHOWS AT RIGHT

and easily tightened by a man inside the form with a twister. Twists of wire, with the wing nuts, can be made up in numbers in advance, and put in with two bolts each as the forms are built. One of the accompanying views shows a narrow form, and the other a wide one, where the concrete is brought up in lifts of a few feet at a time, and anchorage in the last concrete placed is cheaper than carrying the tie across the form. This tie has been used on the Seneca-Cayuga Barge Canal work at Seneca Falls, New York. The device is manufactured by J. W. Johnson, Jefferson and State Streets, Seneca Falls, N. Y.

Business Notes

Frank A. Weaver has resigned as district manager of the Ayer & Lord Tie Company in Cleveland, and has gone into business under his own name, specializing in factory floors. His office is in the Swetland Building, Cleveland.

The Terry Steam Turbine Company, of Hartford, Conn., is now represented in Chicago by A. W. De Revere, whose office is in the Peoples Gas Building. The company has also opened an office in Grand Rapids, Mich., in the Michigan Trust Building. A. L. Searles is in charge of this office, which will cover the territory of the southern peninsula of Michigan.

The Southwark Foundry & Machine Company, of Philadelphia, has secured the exclusive right to manufacture the Harris valveless engine in the United States. This engine, the operation of which is said to be based on the Diesel-engine principle, will be called the Southwark-Harris valveless engine and will be built in sizes ranging from 75 to 1000 hp for both marine and stationary service. Leonard B. Harris, the inventor of the engine, will be retained by the company as consulting engineer and naval expert. J. H. Johnston will be in charge of the company's oil-engine sales.

Trade Publications

The following companies have recently issued trade publications:

Builders' Iron Foundry, Providence, R. I. Leaflet describing the Venturi capillary pen for recording on charts.

The Sanitation Corporation, New York. Booklet, 6 x 8 in., illustrated. Deals with the Reinsh-Wurl screen for sewage clarification. Contains partial list of foreign installations.

Cement Tile Machinery Company, Waterloo, Iowa. Catalog, 10¾ x 7¾ in., 24 pages, illustrated. Contains data on the Winner concrete mixer built in 3, 4 and 6 cu. ft. sizes.

Philadelphia Quartz Company, 121 South Third Street, Philadelphia. Folder, "Standard Specifications for Rocmac Roads." Specifications for grade, foundation, wearing surface, construction and completion of Rocmac roads to be used for 1915.

McDonald Foundry, Columbus, Ohio. Catalog 15-D, 3½ x 6¼ in., 19 pages, illustrated. Catch-basins, road inlets and manhole covers, walk and gutter grates, sanitary rubbish boxes and cans, etc.

Hayward Company, 50 Church Street, New York City. Pamphlet 605, 6 x 9 in., 8 pages, illustrated. Pictures Hayward buckets in action on several jobs and describes briefly their special features.

Electric Welding Company, Pittsburgh. Pamphlet, 6 x 9 in., 8 pages illustrated. Describes the efficiency spacing bar for concrete reinforcement for buildings, tanks and other concrete construction.

Chicago Pneumatic Tool Company, Fisher Building, Chicago. Bulletin E-35, 6 x 9 in., 8 pages, illustrated. Embraces this company's line of Universal electric drills which operate interchangeably on direct current and single-phase alternating current.

Statistics Bureau, 5 East 42nd Street, New York City. Catalog, 6 x 9 in., 20 pages, illustrated. Summarizes briefly equipment used for statistical and comparative data compilation, such as maps, pins, measures, etc., charts and curve cards, scales, triangles and slide rule.

Sandusky Portland Cement Company, Sandusky, Ohio. Booklet 7 x 9 in., 40 pages, illustrated. A treatise on the concrete road by Arthur C. Newberry includes construction, cost, maintenance, specifications and comparisons of costs and wear with other forms of highway construction.

Blaisdell Machinery Company, Bradford, Pa. Catalog, 6 x 9 in., bound, illustrated. Describes air compressors. There are tables on the amount of air required to operate pneumatic equipment, volumes of compressed air at various pressures, etc. Other tables give loss in pressure in pounds due to friction in pipes 100 ft. in length and data regarding volume and pressure.

Vulcan Process Company, Minneapolis, Minn. Catalog 4, 6 x 9 in., 30 pages, illustrated. Oxyacetylene welding torch. Booklet, 6 x 9 in., 12 pages, illustrated. The generation of oxygen and hydrogen by the electrolysis method. Describes the Vulcan electrolytic generator cells, and shows the economy in their use in comparison with chemical or extractive methods.

Austin-Western Road Machinery Company, 910 South Michigan Avenue, Chicago. Memorandum Catalog, 3¼ x 5¼ in., 50 pages, loose-leaf, illustrated. A unique departure in the general type of catalogs. Opposite each right hand page, which is ruled for memorandum, descriptions of road machinery are presented with a reference to catalog description. The cover is of celluloid.

New Construction Activities

Building operations in the five boroughs of New York City from Jan. 1 to March 19 show a 22 per cent increase over the corresponding period of 1914, judging from the building permits issued. In the week from March 13 to March 19 building permits were somewhat less than those granted in the same week of 1914. However, this week in 1914 was 33 per cent greater than the average week from January 1 to March 20, and the March 13 to March 19 week of this year shows a fair increase over the average week for the longer period in 1915. Building permits for the week of March 13 to March 19 this year were $3,070,000 as compared with $3,318,000 for the corresponding week last year; while building permits this year from January 1 to March 19 totaled $29,663,000, as compared with $23,-955,000 for last year.

The city of Chicago sold recently $2,250,000 worth of bonds at 99.097.

It is expected that the March export sales of steel products will exceed 300,000 tons. The business is being stimulated by orders for semi-finished steel products from manufacturers who have contracted for fully finished steel to be delivered abroad.

Buildings

It is reported that a contract has been awarded for erecting an office building at Broadway and Vesey Street on the site of the old Astor House. A $125,000 warehouse has been contracted for in Long Island City. The contract for a $200,000 hotel at Indianapolis was awarded last week, as was also the contract for erecting the new court house at Cincinnati. The lowest bid opened March 15 for erecting an addition to the Free Academy at Utica, New York, was $319,000. Contracts awarded for the University of Minnesota's biology building at Minneapolis total $177,000. Bids are desired on a $225,000 hospital building at Utica, New York. Plans are being prepared for two apartment houses in New York City which will cost $500,000 and $600,000 respectively. Plans have been approved for a $450,000 jail and detention building in New York City. Plans have been prepared for a convention hall in Washington, D. C., which will cost about $250,000. The Board of Aldermen at Buffalo, N. Y., has ordered bonds issued for municipal building work which total $618,000.

Bridges and Roads

The eagerness of the larger contractors for work was well illustrated at the letting of the Pennsylvania concrete viaduct over the Susquehanna River at Harrisburg, Pa. The estimated cost of this bridge exceeded the highest of thirty-eight bids by more than $100,000, and the lowest by nearly $500,000. There were fifty-four sets of plans out for bidding. The principal item of the contract was 56,000 cu. yd. of concrete, for which the remarkably low bid of $4.73 per cubic yard was received. The lowest ten bids on this item were below $6.00 per cubic yard, and all but one bid were below $10.00 per cubic yard.

Plans have been completed for a $2,000,000 drawbridge between Detroit and Belle Island, and an election to vote bonds for construction will be held this spring. The bond issue sold by the city of St. Louis, referred to last week, will be applied to the completion of the free bridge. A bond issue of $170,000 for the construction of a bridge over the Buffalo River has been ordered by the Board of Aldermen of Buffalo.

Paving work was much more active last week. Especially was this true of contracts awarded and work on which bids are desired. The New York State Highway Commission let work totaling several hundred thousand dollars last week, and has advertised for bids on a large quantity of road work for April 14. The Ohio State Highway Commission awarded $114,000 worth of contracts. At Cleveland, Milwaukee and Atlanta large paving contracts were awarded. Paving work which will cost $151,000 has been let at Philadelphia. Bids are desired on paving work which will cost $476,000 at Houston, Texas. Corpus Christi, Texas, is about to let a contract for paving which will cost $100,000. Davenport, Iowa, contemplates $143,000 worth of paving work. Although all bids opened for a million and a half dollar road bond issue at Danville, Ill., were rejected, a number of smaller issues of road bonds were sold last week. Bonds amounting to $145,000 were sold at Visalia, Cal., and Brooksville, Fla., has sold $250,000 worth of paving bonds. In addition, bonds for constructing 65 miles of road near Pecos, Texas, have been sold.

Waterworks and Sewers

The lowest bid opened for the construction of a filtered water reservoir at Cleveland was $272,000. A contract for cast-iron pipe at Laramie, Wyo., was awarded at $30.75 per ton. Montrose, Colo., has sold bonds totaling $90,000 for waterworks improvements. Bids will be received April 3 for a 2,500,000-gal. reservoir at Eugene, Ore. Sewers contracts totaling $68,100 have been awarded at Upper Darby, Pa. It is reported that the Board of Estimate in New York City is considering the construction of a $350,000 sewer in Brooklyn.

Miscellaneous

Considerable railroad construction and improvement work is contemplated in Chicago. The lowest bid opened on jetty work at Galveston, Texas, was $282,000. Bids are desired on river improvements requiring 13,000 cu. yd. of concrete and 56,000 cu. yd. of excavation at Tiffin, Ohio.

The New York Public Service Commission for the First District desires bids April 20 for constructing section 2 of route 12, Eastern Parkway subway in Brooklyn. It is reported from North Yakima, Wash., that the U. S. Reclamation Service has been authorized to spend $987,000 in the Washington Division during the remainder of the fiscal year, ending June 30, for irrigation construction.

Contracting News

Of Special Interest to Engineers, Contractors, Builders and Manufacturers of Engineering and Building Supplies

WATERWORKS.

Items Arranged Geographically

Troy, N. H.—Surveys now being made by Dudley & Sawyer, of Manchester, for proposed water works, to cost $40,000. Dr. Melvin T. Stone, Chmn. Water Comrs.

Barker, N. Y.—Bids desired until Apr. 14 by Bd. Village Trus. for constructing water works, advertised in Engineering Record. W. J. Taylor, Village Clk. Chas. C. Hopkins, Engr., 349 Cutler Bldg., Rochester.

Brocton, N. Y.—Citizens voted to issue $20,000 bonds for extending the water works and increase the water supply.

★**Jamestown, N. Y.**—Contract reported awarded Mar. 11 by Bd. Water and Lighting Comrs. for approximately 40 tons 8-in. and 110 tons 6-in., Class C, bell and spigot c.-i. pipe, and 7000 lbs. special castings, to U. S. Cast Iron Pipe Co., of Buffalo, at $21.10 per ton for pipe and 2.7 cts. per lb. for specials, and for laying and hauling of pipe, to Henry S. Swanson.

New York, N. Y.—Following are the 4 lowest bids opened by Bd. Water Supply, Municipal Bldg., Mar. 23 for Contract 123, constructing 6 superstructures for Kensico influent, upper and lower effluent and screen chambers and Kensico siphon chambers, Mt. Pleasant, Westchester County: Fred. W. Burnham, 30 E. 42d St., $149,420; Emerson Bldg. Co., 103 Park Ave., $151,057; Chas. T. Meads Co., 38 Park Row, $161,976, and Connors Bros. Co., Inc., 54 W. 88th St., $162,825.

Oakfield, N. Y.—Citizens voted Mar. 16 to issue $35,000 bonds for construction of water works.

Watervliet, N. Y.—The Bd. of Aldermen has adopted the new water works bill, allowing city to issue $625,000 bonds to construct a water supply system from French Mills. The bill will now be returned to the Governor.

★**Atlantic City, N. J.**—Contract has been awarded for an 18,000,000 gal. turbo centrifugal pump with appurtenances for Absecon Pumping Station to Kerr Turbine Co., Wellsville, N. Y., at $14,317 (bids opened Mar. 11). L. Van Gilder, Engr. and Supt., Water Dept., City Hall.

Bloomfield, N. J.—Bids reported desired until Apr. 5 by Raymond F. Davis, Town Clk., for furnishing 80 tons 8-in., 66 tons 6-in., 6 tons 4-in. pipe and 2½ tons specials.

Barnesboro, Pa.—Bids desired until Apr. 1 by F. B. Wood, Secy. Boro. Council, for constructing a 500,000-gal concrete lined reservoir and for the necessary pipe to connect the same to present mains. Chas. E. Schlicher, Boro. Engr.

Erie, Pa.—Geo. C. Gensheimer, Secy. Comr. of Water Works, writes that an addition will be placed on the standpipe or another reservoir will be constructed, but nothing will be done for another year or so.

Lancaster, Pa.—Bids desired until Mar. 30 by Water Co. City Councils (H. D. Deen, Clk.) for furnishing materials from May 1, 1915, to May 1, 1916, as follows: Water meters, c. i. pipe, c. i. specials, valves, fire hydrants, hauling pipe and castings; corporation cocks; c. i. stop covers.

Philadelphia, Pa.—Chief Davis of the Water Bureau, will request Council to appropriate out of the new $4,235,000 loan, $25,000 to $50,000 for better protection of the larger water mains that run under steam railroad tracks.

Pittsburgh, Pa.—Bids desired until Mar. 30 by Dept. Pub. Wks. (Robt. Swan, Dir.) for laying water pipe lines and appurtenances to connect the lines on the North Side Point Bridge with the present water supply systems.

Baltimore, Md.—Chas. E. Ellicott, Pres. of Ellicott Machine Corp., and F. H. Cronin, Mechanical Engr., of Sewerage Comn., have recommended to Mayor Preston, after an investigation, that city install a new pump in the Eastern Pumping Station, at Wolfe and Oliver Sts., to take place of pump recently wrecked.

★Contract reported awarded Mar. 17 by Bd. of Awards, to Richard Morton, for installing in the high pressure fire service pumping station on South St., a geared turbo-generator outfit of 500 kw. capacity; cost about $18,000.

The Suburban Water Co. has petitioned Public Service Comn. for permission to issue $25,000 bonds to be used to increase and extend service, to include sinikng of 2 additional wells and to install a new pump house on Mortimer Ave.

East New Market, Md.—Bids desired until Apr. 15 by Bd. Town Comrs. (F. E. Loomis, Secy.) for constructing water works system, advertised in Engineering Record. Work consists of about 1200 ft. 4 and 6 in. mains, 5 fire hydrants, concrete receiving basin, pumping station and tank and tower and all necessary appurtenances. Kastenhuber & Anderson, Engrs., Easton, Md.

Lynchburg, Va.—Plans and specifications on file for reference at New York office of Engineering Record, and bids are desired until Apr. 6 by Council Com. on Water for emergency pumping station and booster pump, advertised in Engineering Record. Work includes: Two brick buildings; centrifugal pumups; transformers, motors and other electrical equipment; c. i. pipe, valves, etc.; liquid chlorine apparatus. H. L. Shaner, City Engr.

Durham, N. C.—Bids desired until Apr. 21 by Mayor and Bd. Aldermen for improvements to the water works; also same time and place separate bids for pumping station equipment; both proposals advertised in Engineering Record. Gilbert C. White, Engr., Charlotte, N. C.

Morehead City, N. C.—See "Sewerage and Sewage Disposal."

Southport, N. C.—Plans being prepared by the J. B. McCrary Co., of Atlanta, Ga., for water works and sewer system, to cost $40,000.

Estill, S. C.—Plans being prepared by J. B. McCrary Co., Atlanta, Ga., for water works and electric light plant, to cost $25,000.

Union, S. C.—Bids desired until Mar. 30 by Commissioners of Pub. Wks., 17 W. Main St., for furnishing material and machinery f.o.b. Union, for water works extension, requiring approximately 21,120 ft. 8 in., 1600 ft. 6 in., 2000 ft. 4 in., c.-i. pipe, 24,000 lbs. original pig lead, 12,000 lbs. c.-i. specials, a 400 g.p.m. centrifugal pump, 4 8-in. H. E. gate valves, 8 4-in. double nozzle hydrants, a 75-hp. induction motor, 6 20-kw 6600-2200 volt transformers, etc. R. A. Easterling, Engr., care of Comrs. Pub. Wks.

Hawkinsville, Ga.—Water and sewer extension bonds in the sum of $30,000 were sold on Mar. 16.

Savannah, Ga.—Bids desired until Mar. 30 at office of Clerk of Council for furnishing approximately 12 tons fabricated structural steel for roof framing for covering water works reservoir. E. R. Conant, Purchasing Officer.

Maryville, Tenn.—W. A. McTeer, City Recorder, writes that the citizens voted Mar. 20 to issue $55,000 bonds for constructing water works, from plans of R. C. Huston, of Memphis.

Chillicothe, O.—City Council has passed an ordinance to repeal resolution instructing City Engineer to prepare plans and estimates for municipal water works.

★*Items marked thus give the names of parties awarded contracts.*

Cleveland, O.—Bids were opened Mar. 17 by Comrs. of Purchase and Supplies, City Hall, for constructing a filtered water reservoir, Contract No. 6, as follows: (a) Walsh Constr. Co., Davenport, Ia.; (b) Lathrop Shea-Henwood Co., Buffalo, N. Y.; (c) F. J. Casey, Pittsburgh, Pa.

	(a)	(b)	(c)
40,000 cu. yds. general excav. for structures	$0.70	$0.85	$0.75
38,000 cu. yds. excav. for backfill	.35	.65	.75
20,000 ton-miles rolling foundations and embankments	.15	.20	.15
8,100 cu. yds. concrete in foundations	5.40	5.90	5.50
5,500 cu. yds. concrete in solid walls	6.35	6.80	6.50
2,300 cu. yds. concrete in conduit sections	8.00	7.90	11.00
10,600 cu. yds. concrete in piers and vaulting	9.00	8.90	8.60
560,000 lbs. steel reinforcement	.02½	.02½	.03
17 tons special castings, furnish and place	100.00	75.00	70.00
9 tons iron castings, furnish and place	60.00	60.00	70.00
6 tons wrought iron and steel, furnish and place	80.00	75.00	70.00
36 tons cast-iron pipes, furnish and place	50.00	40.00	38.00
20 cu. yds. brick masonry	14.00	12.00	10.00
5,600 lin. ft. 3-in. tile drain, furnish and place	.10	.05	.04
940 lin. ft. 12-in. tile pipe drain	.65	.40	.40
Ground water drain (lump sum)	4,900.00	3,526.00	4,590.00
Furnish and place sluice gates (lump sum)	6,500.00	3,850.00	4,500.00
Furnish and place gate valves (lump sum)	100.00	140.00	66.00
Gate houses (lump sum)	3,100.00	2,970.00	2,900.00
Furnish and place stop planks (lump sum)	500.00	112.00	200.00
Change 60-in. pipe drain (lump sum)	800.00	450.00	.....
Totals	$272,636	$290,049	$292,424

Cleveland, O.—Bids desired until Apr. 2 by Commissioner Purchases and Supplies for excavation Baldwin Reservoir.

Cleveland Heights, O.—Bids desired until Apr. 19 by H. H. Canfield, Village Clk., for furnishing material and constructing water mains in Altamont, Caledonia and DeSota Aves. F. A. Pease Eng. Co., Engrs., Marshall Bldg., Cleveland.

South Bend, Ind. — City Council has passed ordinance providing for the issue of $50,000 water works bonds.

★**Grand Rapids, Mich.**—Contract for 600 tons of water pipe reported awarded to the Lynchburg Fdry, Co., Lynchburg, Va., at $23.40 per ton.

Jackson, Mich.—A. W. Hall, City Engr., writes that bids are desired for water pipe, hydrants, valves, etc.

Perry, Mich.—Plans reported to have been approved by State Dept. for water works.

Chicago, Ill.—See "Miscellaneous."

Cicero, Ill.—Bids reported desired until Apr. 12 by Chas. Stoffell, Town Clk., for laying water mains in S. 61st Ave., W. 12th and 15th Sts.

Colo, Ia.—This town expects to spend about $16,000 in the near future for water works, including c. i. mains, steel tower and tank, and pumping plant. Engineer, Lawrence W. Cox, Youngerman Blk., Des Moines.

Morning Sun, Ia.—Bids desired by City Clerk until Apr. 5 for the purchase of $15,000 bonds to be used for construction of water works, from plans of Harper & Stiles, of Kansas City, Mo.

Morning Sun, Ia.—Bids reported desired until Apr. 15 by W. B. Garvin, Town Clk., for constructing water works. Probable cost, $25,000.

Muscatine, Ia.—About $25,000 will be spent by city for water works improvements.

★**Yale, Ia.**—Contract awarded Mar. 15 for constructing water works to C. W. Roland Co., of Des Moines, at $9,148.

★**Burrton, Kan.**—Contract was awarded Mar. 10 for constructing waterworks from plans of W. B. Rollins Co., Midland Bldg., Kansas City, Mo., to Connor Constr. Co., Kansas City, Mo., at $20,500. Next 3 lowest bids: Everett & Burt, Hutchinson, Kan., $20,348; Tonkawa Constr. Co., Kansas City, Mo., $20,600; N. S. Sherman Mchy. & Iron Wks., Oklahoma City, Okla., $20,600.

Laramie, Wyo.—Bids on construction of 5 miles of 14 and 16 in. pipe line desired until Apr. 13, city to furnish all material. Address Z. E. Sevison, City Engr.

★Contracts have been awarded for extension of water system as follows: 1350 tons c. i. pipe to Hendrie & Bolthoff Mfg. & Supply Co., Denver, Colo., at $30.75; c. i. specials, $55 per ton; 34 tons pig lead, $91.40 per ton; and to M. J. O'Fallon Supply Co., Denver, Colo. valves and hydrants, $1,045.

Powell, Wyo.—Bids reported desired until Apr. 5 by W. A. Deming, Town Clk., for $61,000 bonds, the proceeds of which will be used for constructing a water system.

Bentonville, Ark.—Albert C. Moore, of Joplin, Mo., has been retained to make tests to determine efficiency of present water works and electric lighting plants, and to recommend to City Council necessary repairs, renewals and extensions to systems, with a complete estimate of the cost of such work. Dick Rice, Mayor.

Ft. Smith, Ark.—Geo. T. Carnell, City Secy., writes that it is proposed to spend about $30,000 for water works improvements to be done by force account. W. H. Bruce, Supt. Water Wks.

Malvern, Ark.—J. B. McCrary Co., Atlanta, Ga., estimate cost of construction of water works and a sewer system at $115,000.

Mission, Tex.—The City Comrs. reported to have granted Hamilton & Horlock, of Houston, represented by J. P. Beck, a franchise for construction of an electric light and waterworks plant, to cost about $60,000.

Bellingham, Wash.—The Water Dept. has plans for 5000 ft. concrete conduits, 30 in. diam., in connection with intake on Lake Whatcom, and will be in the market for 5000 ft. of 12-in. wood pipe, 700 ft. of 8-in. iron pipe, 3000 ft. of 4-in. and 2500 ft. of 6-in. iron pipe for laterals.

Seattle, Wash.—Following are 3 lowest bids opened by Bd. of Works Mar. 12 for water mains on 38th Ave. S: M. Fiorito & Bros., 616 26th Ave. N., $16,026; D. H. Traphagen, $16,882; Dicken & Rightmire, $17,815.

Eugene, Ore.—Bids will be opened Apr. 3 by C. W. Geller, Secy. and Acting Gen. Supt. Water Dept., for constructing the proposed reservoir, to be of 2,500,000 gals. capacity, of reinforced concrete, wtih perpendicular walls, built in excavation; size 125 x 185 ft. Engineer, F. W. Dietrich, of Eugene.

Fairview, Ore.—The proposition to vote $12,500 bonds for construction of water works, is reported to have been postponed for 1 year.

Sacramento, Cal.—Bids desired until Apr. 20 by M. J. Desmond, City Clk., for furnishing and installing riveted steel and c.-i. water pipe, valves, hydrants and other appurtenances in streets, etc., advertised in Engineering Record.

★**Ogden, Utah.**—Contract for material for proposed 5-mile pipe line to the artesian wells in Ogden Valley reported awarded Mar. 17 by City Comrs. to Geo. A. Lowe Co., Ogden, for 18,400 ft. 24-in. Matheson joint pipe, at $284 per 100 ft., or a total of $52,320, f. o. b. cars in city. The order is conditional on favorable vote on proposed $75,000 bonds issue at the election Mar. 27.

★**Salt Lake City, Utah.**—Contract reported awarded by City Comn. Mar. 17 to Parrott Bros. for laying water mains authorized by city during 1915.

Ottawa, Ont.—At a recent meeting of City Council, it was voted to apply for special ligislation to issue $400,000 bons for constructing overland pipe, to be used for fire protection.

Humboldt, Sask.—Plans being prepared by Chipman & Power, Toronto, for construction of distribution system, to cost $110,000. Contract will be let as soon as bonds are sold. W. H. Stiles, Town Clk.

Vancouver, B. C.—An 18 in. flexible joint c. i. water main, 2000 ft. long across First Narrows, Vancouver Harbor, will be constructed by day labor under direct supervision of J. T. Breckon, Water Works Engr. and Supt.; cost $20,000.

Victoria, B. C.—Bids reported desired until Apr. 5 by W. Galt, Purchasing Agt., for supplying 25 1-in., 10 1½-in., 12 2-in. and 3 3-in. water meters.

SEWERAGE AND SEWAGE DISPOSAL.

Items Arranged Geographically

Derry, N. H.—Citizens voted Mar. 9 to have survey, plans and estimates made by Dudley & Sawyer, Manchester, for a sewer system and disposal plant to cover both Derry and West Derry. The committee to report June 12. Arthur Greenough, Chmn. Sewer Com.

Wellesly, Mass.—Town Clerk writes that town is now open for bids for the proposed sewer system, to connect with the South Metropolitan system; approximate cost of work proposed, $150,000.

Avon, N. Y.—W. H. Clark, Village Clk., writes citizens voted Mar. 16 to issue bonds for constructing sewers in Reed, Rochester and other streets.

Brooklyn, N. Y.—Bd. of Estimate of New York is considering construction of a sewer system in the South Bensonhurst section; cost about $315,000.

Buffalo, N. Y.—Bd. of Aldermen has ordered bond issue of $180,000 for public City Council has ordered construction of tile sewers in Hertel and Northumberland Aves. sewers.

Bids desired until Apr. 3 by Dept. Pub. Wks. (F. G. Ward, Comr.) for constructing an 8-ft. brick sewer in Swan and Seneca Sts., a 4-ft. 4-in. sewer in Calais St.; alternate bids will be received for construction, with brick, reinforced concrete pipe and vitr. segment blocks, a 45, 42, 39, 36, 33 and 27-in. brick and 24-in. and 18-in. tile sewer in Fillmore Ave., a 15-in. tile sewer in Northumberland Ave.

Long Island City—L. I., N. Y.—Bids desired until Mar. 31 by Maurice E. Connolly, Boro. Pres., for constructing sewer and appurtenances in Joslin and Sanford Aves., Brevort, Greenfell and several other streets. Total security, $35,200.

Ravena, N. Y.—Citizens reported to have voted to issue $40,000 bonds for sewer system and disposal plant.

Ravena, N. Y.—Bids desired until Apr. 10 by Bd. Village Trus. for constructing about 5 miles of vitr. pipe sewers 8, 10 and 12 in. and a sewage treatment works, advertised in Engineering Record. Morrell Vrooman, Engr., Gloversville. A. L. Swanson, Village Clk.

Rochester, N. Y.—Bids desired until Mar. 31 by Bd. Contract and Supply (F. X. Pifer, Secy.) for constructing a tunnel sewer in Main St., W. and E. and Front St.

Oaklyn, N. J.—Bids desired until Apr. 6 by Borough Council for constructing a complete system of sewers and a sewage disposal plant, advertised in Engineering Record. Remington & Vosburg, Consulting Engrs. 601 Market St., Camden.

Gloucester City, N. J.—Plans reported being prepared for sewage disposal plant.

★**Allentown, Pa.** — Contract reported awarded by City Council to Geo. H. Hardner, of Allentown, for constructing storm sewers at $70,000.

Annville, Pa.—Bids desired until Apr. 17 by Comrs. of Annville Township at the office of W. Elmer Heilman, Township Clk., Annville, for constructing a storm sewer, advertised in Engineering Record.

Connellsville, Pa.—See "Paving and Roads."

Downingtown, Pa.—Borough Council has passed ordinance to issue $70,000 bonds for construction of a sewer system and disposal plant.

Franklin, Pa.—Borough Council reported to be considering construction of a new sanitary sewer system. A. B. Curry, Boro. Engr.

Greenville, Pa.—Bids desired by Borough Council until Apr. 19th for a sewage disposal plant, intercepting sewers, and laterals in accordance with plans of Chester & Fleming, Pittsburgh, Pa. The sewers range in size from 24 in. to 8 in., and the disposal works consist of two Imhoff tanks and chloride disinfection plant.

Philadelphia, Pa.—Mayor Blankenburg has signed the ordinance providing for a temporary sewage pumping station near Old York Road and 69th Ave., to cost $35,000.

★**Upper Darby, Pa.**—Contracts reported awarded by Comrs. of Upper Darby Township (Wm. Pendlebury, Secy., Cardington, Pa.) for constructing terra cotta pipe sewer in Sections Nos. 3, 4 and 5; Keystone Sewer Dist. and Sect. No. 2 Garrettford Sewer Dist., approximately 33 miles (bids opened Mar. 2) to the following contractors: Martin & Miller, New York, $13,500; W. J. McNichol, Philadelphia, $48,800; Cantrell Const. Co., Philadelphia, $34,100, and Fred T. Buckis, Frankford, $22,500. A. F. Damon, Jr., Engr., Post Office Bldg., Darby.

Baltimore, Md.—Bids desired until Apr. 14 by Bd. Awards at City Register's Office, for Contract 149, covering Sect. 1 of the Gwynn's Falls intercepter, advertised in Engineering Record.

★**Morehead City, N. C.**—M. S. Wells, City Secy.-Treas., writes that contract has been let to J. B. McCrary & Co., of Atlanta, Ga., for sewers, at $19,000, and water works extension, at $5,000, and work is already under construction.

Southport, N. C.—See "Water Works."

Hawkinsville, Ga.—See "Water Works."

South Jacksonville, Fla.—City Council reported to be considering issue of $65,000 bonds for sewers and paving.

Cleveland Heights, O.—Bids desired until Apr. 19 by H. H. Canfield, Village Clk., for constructing storm and sanitary sewers in De Sota Ave. and Lee Rd. F. A. Pease Engr. Co., Engrs., Marshall Bldg., Cleveland.

Dayton, O.—Bids desired until noon, Mar. 29, by Dept. Pub. Service (Victor Parker, Secy.) for furnishing material and constructing storm water sewers in portions of Berm and Wyoming Sts., Burton, Grafton and Norman Aves.

★**Granville, O.**—Contract has been awarded for constructing sewers to Chapman & Glover, Lorain, at $19,388, and for disposal plant to the G. E. Scott Eng. Co., of Norwalk, at $14,316 (bids opened Mar. 9). For other bids received see Engineering Record, Mar. 20. Theo. S. Johnson, Engr., Granville.

Salem, O.—Bids reported desired until Apr. 9 by City Clerk, for sewer in McKinley Ave., to include 52,000 8 and 10 in. pipe.

Bedford, Ind.—Bids desired until Mar. 30 by J. W. Malott, City Engr., for constructing about 19,500 ft. of sewers, advertised in Engineering Record.

Gary, Ind.—Bids reported desired until Mar. 29 by H. C. Francis, City Clk., for constructing Dist. Sewer No. 24, requiring 3255 ft. 12 to 19 in. vitr. sewer tile, 918 ft. 36 in. concrete sewer, 23 manholes, etc. Probable cost, $11,569.

Ishpeming, Mich.—Citizens voted $30,000 bonds for construction of sewers.

Janesville, Wis.—Bids desired by the Bd. of Public Works, Jas. A. Fathers, Chmn., until Apr. 16 for construction of sewers in Sewerage Dists. 5, 10, 11, 14 and 15, aggregating 292 lin. ft. of 12-in., 329 lin. ft. 10-in., 4518 lin. ft. 8-in. sewers, 13 manholes and 6 lampholes; average cut 8¼ ft. C. V. Kerch, City Engr.

Oshkosh, Wis.—Bids reported desired until Apr. 6 by the Bd. Pub. Wks., for constructing sewers in portions of 7th and Lincoln Aves., Evans, Sterling, 10th, and several other streets.

Burlington, Ia.—Following are bids opened Mar. 18 for constructing Gnahn St. sewer and branches, about 16,900 lin. ft. vitr. pipe, 8 to 36 in. (price given per ft.), Young & Bueschner Constr. Co., Burlington, Ia., $1.22; Reise Bros., Quincy, Ill., $1.28; Cedar Rapids Constr. Co., Cedar Rapids, Ia., $1.30. H. G. Vollmer, City Engr.

Cedar Rapids, Ia.—Bids desired until Mar. 29 by L. J. Storey, City Clk., for furnishing material and constructing sanitary sewers and water connections in portions of 8th and H Aves., 13th, 19th and several other streets; also until Apr. 5 in portions of 6th Ave., 12th, 17th and several other streets.

Grinnell, Ia.—Bids desired by A. C. Harriman, City Clk., until Mar. 31 for construction of 69,000 ft. of 8 to 24-in. sanitary sewers, sedimentation tank, filters and sludge bed; 3 sections. Engineers, Iowa Eng. Co., Clinton.

Postville, Ia.—Bids desired until Apr. 7 by Wm. Shepherd, Town Clk., for constructing a sewer system, consisting of approximately 4½ miles 8, 10 and 12 in. sewer pipe and a sewage disposal plant. Estimated cost, $25,000. Aetna Engineering Bureau, Engrs., 17 N. La Salle St., Chicago, Ill.

State Center, Ia.—Bids desired until Apr. 15 by J. W. Sparks, Town Clk., State Center, for constructing a sanitary sewer system, consisting of approximately 3085 ft. 10-in. and 21,128 ft. 8-in sewer, also a disposal plant, consisting of a reinforced tank of 50,000 gals. capacity and 2 sand filters with all accessories.

Butte, Mont.—Bids desired until Mar. 30 (extension of date from Mar. 17) by W. J. Flood, Comr. Pub. Wks., for constructing 13 miles 8, 10 and 12-in. sanitary sewers.

Roundup, Mont.—Bids reported desired until Apr. 5 by F. A. Appleman, City Clk., for sewer work, to include 20,000 ft. 8, 10 and 12 in. pipe.

San Antonio, Tex.—Bids desired by F. Fries, City Clk., for sewer work as follows:

Until Mar. 29—Constructing sanitary sewers in what is known as Contr. Sec. No. 33.

Until Apr. 12—Constructing approximately 1300 ft. 60 in. sanitary sewer to connect with steel flume across San Antonio River.

Until Apr. 19—Constructing a 60 in. steel flume across San Antonio River.

★**Limon, Colo.**—Contract reported awarded to the Geo. H. Sethman Co., Denver, for construction of sewer system.

Spokane, Wash.—It is reported that sewer changes estimated to cost $50,000, growing out of the Northern Pacific grade separation, have been ordered by City Council, and bids are to be called for 3 groups, as follows: Sprague Ave. and Division St.; 3d and 4th Aves. crossing Northern Pacific right-of-way; 5th Ave. and Cannon St. Morton MacCartney, City Engr.

Tacoma, Wash.—City Comn. reported to be considering construction of sanitary sewers in S. 38th St., to cost $13,000.

Aberdeen, Wash.—It is reported that bids are desired until Apr. 28 for a sanitary sewer system in West Aberdeen, work to include 32,000 ft. 8-in. vitr. pipe, 12,000 ft. 10-in., 2100 ft. 12-in., 1500 ft. 15-in., 14,000 ft. 20-in., 1400 ft. 24-in., 700 ft. 30 in., and 3100 ft. 36-in., and 225 manholes. Louis D. Kelsey, City Engr.

★**San Diego, Cal.**—Contract reported awarded to Chas. H. Julian, of San Diego, for completing Ocean Beach sewer (bids opened Feb. 8).

Mesa, Ariz.—Sewer Com. of City Council has engaged Julius Aichele, representing John Sandburg & Co., of Denver, Colo., to prepare preliminary plans for sewer system.

Toronto, Ont.—Bids desired until Mar. 30 by T. L. Church (Mayor), Chmn. Bd. Control, for constructing sewers in portions of Cloverdale Rd., Rose Park Drive, Erie Terrace, Heath, and several other streets, and Sunnyside storm overflow sewer, Sec. No. 1.

★*Items marked thus give the names of parties awarded contracts.*

BRIDGES.

Items Arranged Geographically

Newport, R. I.—See "Miscellaneous."

Buffalo, N. Y.—Bd. of Aldermen on Mar. 15 ordered bond issue of $170,000 for bridge over Buffalo River at Abbott Road.

New York, N. Y.—See "Miscellaneous."

Camden, N. J.—Bids desired until Apr. 12 by F. W. George, Clk. Co. Bd. Chosen Freeholders, for constructing 2 reinforced concrete arches on Kings Highway. J. J. Albertson, Co. Engr.

Jersey City, N. J.—Bids desired until Apr. 8 by County Bd. Chosen Freeholders, Jersey City, for painting 14th St. Viaduct; also repairing pavement of the viaduct; also painting West Newark Ave. Bridge over Hackensack River.

Natrona, Pa.—Comrs. Allegheny County at Pittsburgh and Braeburn County are considering constructing bridge over Allegheny River; probable cost $225,000.

★**Washington, D. C.**—Contract for constructing bridge over Anacostia River awarded by Gen. Kingman, Corp. Engrs. U. S. A., to Penn Bridge Co., Beaver Falls, Pa., at $6,780.

Rome, Ga.—Plans have been completed by Spiker & Greiner, Atlanta, for construction of 2 concrete and one steel draw bridge for Floyd County.

Clearwater, Fla.—Bids desired until Apr. 6 by County Comrs., for following sizes of corrugated iron culverts; 40 ft. 72 in., 36 ft. 48 in., 72 ft. 36 in., 200 ft. 24 in., 300 ft. 18 in., 300 ft. 15 in., 200 ft. 12 in., 108 ft. 15 in. Clements McMullen, Co. Highway Engr.

Jacksonville, Fla.—Bids desired until Apr. 1 by Co. Comrs. for making soundings and preparing plans and specifications for a bridge over McGirt's Creek to replace present bridge known as Ortega Bridge; also a bridge over Trout Creek to replace present bridge known as Trout Creek Bridge at Panama. Frank Brown, Co. Clk.

Tupelo, Miss.—Bids desired by County Clerk until Apr. 5 for furnishing one car of steel I-beams and channels, and for furnishing and erecting one 60-ft. span steel bridge. Engineer, L. G. Smith, of Tupelo.

Leitchfield, Ky.—Bids reported desired until Apr. 27 by Edw. Butler, Road Engr., Caneyville, for constructing 85 ft. bridge over Bear Creek about 12 miles from Leitchfield.

Bryan, O.—Bids desired until Apr. 13 by County Comrs., for constructing bridges as follows: Schmucker Bridge, 144 ft. steel span, reinforced concrete floor, cost $6,544; Elder Bridge, 70 ft. steel span, reinforced concrete floor, substructure reinforced concrete; cost $3,650; Haugh Bridge, 67½ ft. steel superstructure, reinforced on concrete floor; cost $2,324; Heer Bridge, 60 ft. steel span, reinforced concrete floor; cost $2,092. Ruff Bridge, 50 ft. steel span, reinforced concrete floor; cost $1,708. All roadways to be 16 ft. wide. C. R. Lowe, Co. Aud.

Cleveland, O.—Bids desired until Apr. 14 by County Comrs. (E. G. Krause, Clk.) for constructing concrete bridge per Report No. 3487. W. A. Stinchcomb, Co. Surveyor.

Eaton, O.—Bids reported desired until Mar. 31 by County Comrs., for constructing a 3-span concrete arch over Twin Creek on Salem Rd., Harrison Township, and a concrete arch across Paint Creek, Dilman Rd., Somers Township.

Hamilton, O.—Bids desired until Apr. 17 by W. W. Crawford, Co. Aud., for constructing bridge over Miami River at Woodsdale. Bids desired on steel or steel and concrete construction. F. M. Hammerle, Co. Surveyor.

★**Lima, O.**—Contract was awarded Mar. 15 by Bd. Public Service (R. A. Shappell, Dir.) for constructing Pine St. bridge, a concrete structure, to Burk Constr. Co., of Newcastle, Ind., at $20,363. Engineers, Chester & Fleming, Pittsburgh, Pa.

Marion, O.—Bids reported desired until Apr. 2 by W. P. Garfield, Clk., Bd. Co. Comrs., for constructing a bridge over Whetstone River, Richland Township. Probable cost $8,000.

Benton Harbor, Mich.—Bids desired until Apr. 7 by B. Spaulding, City Clk., for constructing a reinforced concrete bridge at Crystal Springs Cemetery, advertised in Engineering Record.

Jackson, Mich.—Bids desired by A. W. Hall, City Engr., Apr. 6 for constructing a steel or concrete bridge over Grand River at Mechanic St.

Detroit, Mich.—Plans have been completed by Barclay, Parsons & Klapp and Cass Gilbert, New York, N. Y., for bridge to be constructed at Belle Isle. Plans provide for a concrete structure with jack-knife draw, to cost about $2,000,000. Election to vote on proposition will probably be held this spring.

★**Broughton, Ill.**—Contract awarded for constructing Broughton Bridge (bids opened Mar. 15) to American Bridge Co., Vincennes, Ind., at $4,273. Gregg Garrison, of Garrison, County Supt. of Highways.

Illinois.—Bids desired for constructing bridges in Illinois as follows:

Bloomington, until Apr. 3, at Court House, Bloomington, a steel bridge on plain concrete abutments, to be erected between Rutledge Township, De Witt County, and Empire Township, McLean County, known as County Line Bridge, span 110 ft., roadway 16 ft. Engineer's estimate, $4,650. R. O. Edwards, Co. Supt. Highways, Bloomington.

Princeton, until Apr. 7, a reinforced concrete bridge, to be built in Dover Township, known as Matson Bridge, span 40 ft., roadway 20 ft. Engineer's estimate, including backfill, $1,750.

★Livingston County — Contract was awarded Mar. 22 by State Highway Dept. to Jos. Klein for constructing Young bridge in Pontiac Township, at $7,474.

★**Pontiac, Ill.**—Contract awarded Mar. 18 for constructing concrete arch bridge to Jas. Klein, of Freeburg, at $7,474. R. W. Osborne, County Supt. of Highways.

Burlington, Ia.—It is proposed to construct bridge at foot of High St. Address E. Egan, Commercial Exchange, Iowa State Bank Bldg.

Dubuque, Ia.—See "Paving and Road-making."

★**Knoxville, Ia.**—Contract awarded Mar. 15 for 12,808 lin. ft. of 12-in. to 24-in. iron culvert pipe to Ft. Dodge Culvert Co., of Ft. Dodge, at $8,844. W. Price, Co. Engr.

Marion, Ia.—Bids desired until Mar. 30 by F. A. Canfield, County Aud., for constructing 14 bridges and culverts.

★**Marengo, Ia.**—Contract for constructing bridges for Iowa County awarded by Bd. Supervs. to M. O. Burnett, Marengo, at $26,000.

Tipton, Ia.—Bids desired until noon Mar. 29 at office of County Auditor, Tipton, for constructing 75 reinforced concrete bridges and culverts. Total estimated cost, $33,000.

★**Caledonia, Minn.**—Contract has been awarded by County Comrs. to Joliet Bridge Co., Joliet, Ill., for constructing 4 bridges at $6,044. E. N. Newhouse, Co. Aud.

★**New Ulm, Minn.**—Contract awarded Mar. 18 by City Council to M. A. Adams & Co., Minneapolis, to construct combination steel and concrete approaches to Beussmann and Courtland Highway bridges, spanning Minnesota River, at New Ulm. F. D. Minium, City Engr.

Stillwater, Minn.—Bids desired until Apr. 12 by County Comrs. (B. F. Harris, Chmn.), for constructing bridges as follows: Skew Bridge, Shane Creek, 22 ft.; Butcher Creek, at Campbell Pl., 30 ft.; East Rosebud, 60 ft.; West Rosebud, 55 ft.; Absarokee, Rosebud River, riveted span, 95 ft.

★**Garfield, Kan.**—Contract awarded Mar. 15 for constructing concrete bridge over Arkansas River, to Kansas City Paving & Contr. Co., Kansas City, at $11,200. W. C. Ware, County Clk.

Lawrence, Kan.—Herman Broeker, Co. Clk., writes that proposed bridge to be constructed at Lawrence will be of concrete and cost $200,000. Preliminary work is now being done by Hedrick & Cochrane, Consulting Engrs., Kansas City, Mo.

Yankton, S. D.—A. C. Ellerman, Gen. Mgr., Ellerman-McLain Constr. Co., Yankton, writes that at a recent mass meeting of citizens a committee was appointed to investigate and formulate a plan for construction of a combination railroad and wagon bridge across Missouri River and would like to correspond with a promoter who has had experience along this line; they also want estimates as to cost of structure; soundings were made a number of years ago, so interested parties will be furnished this information by the committee.

Rockport, Mo.—Bids reported desired until Apr. 12 by J. A. Krusor, Co. Highway Engr., constructing bridges as follows: Gilkinson Bridge, 90 ft. steel span; Wheeler Donihoo Bridge, 90 ft. steel span; Clement Bridge, 70 ft. steel span; also moving a 120 ft. steel span, high truss, to the site about 100 ft. south. This bridge to be set on 4 steel tubes 36 in. in diam. x 24 ft. long, filled from end to end with concrete. Contractor to furnish tubes.

St. Louis, Mo.—Bonds amounting to $2,750,000 for completing the free bridge have been sold by city.

★**Floresville, Tex.**—Contract for constructing 2 iron bridges, one over San Antonio River and one over Picosa Creek, awarded by Comrs. Court to Alamo Constr. Co., San Antonio, at $10,500.

Bellingham, Wash.—Following are 3 lowest bids opened by County Comrs. Mar. 18 for constructing 380 ft. steel bridge with concrete piers over Nooksack River on Guide Meridian Rd.: Weymouth Constr. Co., Pier 1, Seattle, $30,713 (awarded contract omitting price of removing old approaches); Graff Constr. Co., Crary Bldg., Seattle, $32,735, and Central States Bridge Co., Seattle, $31,966. C. M. Adams, Co. Engr.

Marysville, Wash.—Bids reported desired Apr. 12 by M. Weatherby, Co. Aud., Everett, for constructing a reinforced concrete steel viaduct on the Pacific Highway near Marysville. H. Mumm, Jr., Co. Engr., Everett.

Hanford, Cal.—Bids reported desired until Apr. 7 by County Superv. for constructing a steel and concrete bridge over Cross Creek near here. B. E. Duffield, Co. Surveyor, Hanford.

Redwood City, Cal.—Bids reported desired Apr. 5 by County Bd. Superv. for constructing a 3-span steel and reinforced concrete bridge in 5th Road Dist. and a concrete retaining wall.

Nogales, Ariz.—State Legislature has appropriated $12,500, Santa Cruz County to contribute a like sum, to be used to construct bridge across Santa Cruz River, near Nogales, of 400 ft. reinforced concrete; it will be built by day labor under direction of Lamar Cobb, State Engr., Phoenix.

Boise, Idaho.—Plans have been completed by E. S. Smith, State Engineer, for structing 7 concrete and steel bridges in Idaho.

Burford, Ont.—Bids reported desired until Apr. 3 by T. W. Taylor, Cathcart, Clerk of Burford Township, for 60 ft. steel highway bridge.

Toronto, Ont.—Contract is about to be let by Works Commissioner, according to reports, for a steel bridge with concrete abutments on road to be constructed through Mt. Pleasant Cemetery; estimated cost, $40,800.

Calgary, Alta. — The City Engineer writes that no bids were opened Mar. 12, by City Comrs., for furnishing and erecting the proposed steel superstructure for Louis Bridge at 9th W. St.; the matter has been indefinitely postponed.

PAVING AND ROADS.

Items Arranged Geographically

Beverly, Mass.—Bids desired until Mar. 30 by Com. Pub. Service (Fredk. B. Browning, Clk) for furnishing road oils, dust layer oils and other bituminous and asphalt binders.

Fall River, Mass.—The City Budget as adopted includes the following loans: Highways, construction of streets, $30,000; highways, granolithic sidewalks, $20,000; highways, macadam, $75,000; paving, $40,000.

Manchester, Conn.—Bids reported desired until Apr. 3 by Selectmen for constructing 7000 to 10,000 ft. curbing and a quantity of radius and drive corners 40,000 to 60,000 sq. ft. concrete walks, etc. Howard I. Taylor, Selectman.

★**New Haven, Conn.** — Contract was awarded Mar. 15 for laying new cement sidewalk at such locations as may be required to Rich. C. Faulkner, 162 Read St., at 8½ cts. per ft. for both the eastern and western sections.

Albany, N. Y.—Bids desired until Apr. 14 by State Highway Comn. (Edwin Duffey, Comr.), Albany, for constructing State Highways advertised in Engineering Record.

Albany, N. Y.—Following are totals of 4 lowest bids opened Mar. 23, by State Highway Comn., 55 Lancaster St., Albany, for construction of public highway by State Aid:

Road No. 965-A Obi-Cuba Allegany County, 9.52 miles: McGreevey McGuigan & Baum Constr. Co., Elmira, $17,969. Dale Eng. Co., Utica, $18,469; Bison City Eng. Contg. Co., Buffalo, $18,997; Flood & Van Wirt Co., Hudson Falls, $19,150.

Road 5543, Hinsdale-Franklinville, Part 1, Cattaraugus Co., 6.98 miles: Austin W. Summers, Buffalo, $107,770; M. Bennett & Sons, Indiana, Pa., $112,060; Lesher, Roess Lesher, Oil City, Pa., $114,507; Woolsey Constr. Co., Davenport, Ia., $115,072.

Road 5258, A, Little Valley, Randolph, Part 3, Cattaraugus Co., 5.35 miles, Austin W. Summers, Buffalo, $90,224; Serviss & Mackey, Youngstown, $93,801; Mich. H. Ripton, Rochester, $93,995; Lake Shore Constr. & Supply Co., Dunkirk, $94,731.

Road 1230, Harlemville-Mellenville, Columbia County 4.97 miles: John L. Hayes Constr. Co., Yonkers, $60,492; Jas. Garafano & Sons, Mt. Vernon, $60,817; H. B. Sproul Constr. Co., Inc., Peekskill, $61,655; Brady & Oltarsh, New York, $61,736.

Road 5546, Eighteen-Mile Creek, Evens Center, Erie County, 4.48 miles: Austin W. Summers, Buffalo, $69,736; Mich. H. Ripton, Rochester, $69,754; John Johnson Constr. Co., Buffalo, $70,484; Harry B. Harrison, E. Rochester, $71,207.

Road 1222, Saranac Lake Village, Broadway and River Sts., Franklin County, 0.22 miles: John F. Lewis, Albany, $3,474; M. J. Vitilli, Saranac Lake, $3,586; Rumpft & Stevens, Lake Placid, $3,600; Wm. H. Murray, Saranac Lake, $3,919.

Road 5269 B, County Line-Adams Center, Jefferson County, 0.51 miles: J. A. Weidman, Syracuse, $5,816; John F. Lewis, Albany, $6,032; A. J. Rockwood, Rochester, $6,093; Semper Bros., Watertown, $6,250.

Road No. 1237, Pittsford Village North, North Main & State Sts., Monroe County, 0.66 miles: Grennfield Constr. Co., Hornell, $22,294; Monroe Roads Co., Pittsford, $22,396; Mich. H. Ripton, Rochester, $22,762; Ribstine-Holter Constr. Co., Inc., Rochester, $22,834.

Road 758-A, Olcott-Lockport, Part 1, Niagara County, 8.33 miles: Austin W. Summers, Buffalo, $38,768; Harradine Bros., Inc., Spencerport, $38,881; Public Service Contr. Co., Niagara Falls, $38,977; Greenfield Constr. Co., Hornell, $39,046.

Road 909 A, Brewster-Carmel, Putnam County, 0.13 miles: Jas. Garafano & Son, Inc., Mt. Vernon, $1,733; H. B. Sproul Constr. Co., Inc., Peekskill, $1,911; John Twinane, Hartsdale, $1,848; Amos D. Bridges Sons, Inc., Hazardsville, Conn., $2,066.

Road 5533, Rensselaer-De Freesville, Rensselaer County, 2.11 miles: Belmar Contr. Co., Inc., Troy, $26,814; Murray Contr. Co., Troy, $26,936; Gifford Constr. Co., Jamaica, $28,811; John Arborio, New Haven, Conn., $29,413.

Road 5234, Liberty—County Line, Part 2, Sullivan County, 8.51 miles: John S. Armstrong, Middletown, $37,128; John J. Guinan Contg. Co., Brooklyn, $37,205; Eggleston & Garthwaite, Yonkers, $37,878; John De Michael & Bro, Torrington, Conn., $40,601.

Brooklyn, N. Y.—Bids desired until Mar. 31 by L. H. Pounds, Boro. Pres., for regulating and repaving, including the restoration of the pavement, etc., removed and damaged in connection with the connection of the Classon Ave. relief sewer, Div. 1, Sec. 1, Hughes St., Classon and Park Aves., requiring 1060 sq. yd. asphalt pavement, including binder course, 11,195 sq. yd. Grade 2 granite pavement, 1050 sq. yd. Belgian pavement, etc.

Buffalo, N. Y.—Bids desired until Mar. City Council voted to pave with brick Alsace Ave. and Cassimir Sts.

It is proposed to widen W. Ferry St from 49½ to 100 ft.; land already acquired. Bids for paving and walks to be advertised in about 2 months. Railroad over crossing may be changed. Plans in preparation. Geo. H. Norton, Deputy Engr. Comr.

★**Corning, N. Y.**—Wm. O. Drake, Supt. Pub. Wks., writes contracts were awarded Mar. 16 as follows: To Bradley & Nolan, of Corning, for 956 sq. yds. brick paving at $2,303, and to T. W. Green, Corning, for 1852 lin. ft. sewer, at $2,077.

Long Beach, L. I., N. Y.—Citizens of Long Beach voted $200,000 bonds for street improvements.

New York, N. Y.—Bids desired until Apr. 1 by Park Bd. (Cabot Ward, Pres.) for furnishing and delivering 22,000 gal. refined coal tar and 22,000 gal. tar road oil for parks, Boro. Bronx.

Bids desired until Apr. 1 by F. J. H. Kracke, Comr. Bridges, for furnishing and delivering wood paving blocks to the Dept. of Bridges.

Oneonta, N. Y.—Frank M. Gurney, City Engr., writes contract was awarded Mar. 15 to Phelan & Sullivan, of Utica, for bituminous macadam pavement on River St., at a total of $19,551. Next 3 lowest bids: Rump & Stevens, Brooklyn, $21,924; De Graff & Hogaboom, Inc., Kingston, $22,585, and Sherman Contr. Co., Oneonta, $23,124.

Rochester, N. Y.—It is proposed to pave Norton St. with asphalt or brick, on 6-in. concrete foundation, with 12,000 lin. ft. 6-in. curb; cost $75,000.

★Contracts for paving awarded by Bd. Contract and Supply as follows: Jacobs St., to Ribstein, Holter & Co., at $15,480, and Culver Rd. pavement, to Flower City Contr. Co., at $35,131.

Lowest bid opened by Bd. Contract and Supply for asphalt repairs on streets in which guarantee has expired submitted by Warren Bros., Rochester, at $55,000.

Bayonne, N. J.—Bids desired until Apr. 6 by Council for furnishing material and repaving with asphalt on old macadam pavt. 34th, 36th and 54th Sts., in all about 20,980 sq. yds. paving, 11,460 lin. ft. old curb realigned and redressed, etc.; also same time improving 5th and 8th Sts. and Humphreys Ave. with bituminous concrete, 17,800 sq. yds.; with sheet asphalt, 14th, Orient, 20th, 38th, 47th, 51st, 15th, 53rd, 12th, Linnet, 50th, 41st and George Sts., Ave. A. Lord and Hobart

Harrisburg, Pa.—Thos. B. Kennedy, of Chambersburg, Engr. of the Cumberland Valley R.R. Co., writes that 38 bids were opened Mar. 20 for the construction of a double-track concrete arch bridge over Susquehanna River at Harrisburg, ranging from $270,290 to $633,690.

★Following are unit prices of 5 lowest bids: (a) Robt. Grace Contr. Co., Pittsburgh, Pa., $270,290 (awarded contract); (b) E. Purcell, $270,968; (c) W. W. Boxley & Co., $279,425; (d) Booth & Flinn, Ltd., $283,303; (e) T. L. Eyre, $293,650.

	*(a)	(b)	(c)	(d)	(e)
56,000 cu. yds. concrete masonry	$4.73	$4.74	$4.77	$4.93	$5.12
102,000 sq. ft. waterproofing	.025	.02	.05	.025	.01
7,800 lin. ft. conduit	.30	.40	.60	.50	.30
21 sets, manhole frames and covers	20.00	8.00	25.00	13.00	10.00
100 cu. yds. old masonry (to remove)	1.00	2.00	20.00	5.00	3.00

Cement, reinforcing steel and anchor bolts to be furnished on cars, at site of bridge, by the Railroad Co.

★*Items marked thus give the names of parties awarded contracts.*

Aves., in all 93,900 sq. yds. 35,000 lin. ft. new bluestone curb, 63,800 sq. ft. new bluestone flag, etc.; reimprovement of 16th and 32d Sts. and Ave. E with sheet asphalt, about 14,900 sq. yds., 7800 lin. ft. old curb realigned, etc.; all four proposals advertised in Engineering Record. Wm. P. Lee, City Clk.

★**Long Branch, N. J.**—Contract for paving Ocean Ave. with Mack brick from Allenhurst to Long Branch city line awarded by Deal Bd. Comrs. to Scheffler Burns Paving Co. at $132,364.

Newark, N. J.—Bids desired until Apr. 1 by Bd. Street and Water Comrs. (Morris R. Sherred, Ch. Engr.), for paving and repaving Central Ave., Niagara and Margaretta Sts., requiring approximately 3000 sq. yd. 4-in. wood block pavement on a 6-in. concrete foundation, 5000 sq. yd. napped reclipped granite block pavement on a 6-in. concrete foundation, etc.

Newton, N. J.—Bids reported desired until Apr. 5 by County Bd. Freeholders, for constructing 5 miles waterbound macadam on Newton-Sparta Rd.; graded width 24 ft., surfaced width, 14 ft.; 40,000 cu. yds. excavation. Harvey Snook, Co. Engr.

Paterson, N. J.—Bids desired until Apr. 6 by Bd. Pub. Wks., for resurfacing and repairing asphalt streets; also grade, curb and gutter, portions of E. 33d, E. 34th, E. 18th and several other streets. H. J. Harder, City Engr.

Jersey City, N. J. See "Bridges."

Montclair, N. J.—Bids desired until Apr. 12 by Harry Tippett, Town Clk., for furnishing asphalt for use in resurfacing streets during 1915, also same time and place separate bids for furnishing asphalt road oil containing approximately 45 per cent. of asphalt for use in oiling streets during period of 1915, both proposals advertised in Engineering Record.

Phillipsburg, N. J.—Bids desired until Apr. 3 by Town Commissioners, Phillipsburg, for repaving S. Main St. upon present concrete foundation. Sch. A—10,500 yds. vitr. block; Sch. B—20,800 sq. yds. vitr. block; Sch. C—10,500 sq. yds. wood block; Sch D—20,800 sq. yds. wood block. Robt. P. Howell, Comr. Streets and Pub. Improvements.

Rutherford, N. J.—Bids desired until Apr. 2 by F. A. Stedman, Boro. Clk., for 140,000 sq. yds. road oil or dust layer on the streets of the Boro.; also furnishing about 1500 cu. yds. trap rock, 2½, 1½, 1 and ¾ in.

Somerville, N. J.—Bids desired until Apr. 2 by County Bd. Chosen Freeholders (Louis E. Opie, Dir.) for improving with waterbound macadam Finderne Rd., Bridgewater Township, a distance of 5497 ft., requiring approximately 10,205 sq. yds. surface course, etc.

Connellsville, Pa.—Bids desired until Apr. 5 for grading, paving and curbing certain streets, also paving block for same and construction of new sewers. For further information address Chas. F. Hirts, City Engr., Second National Bank Bldg., Connellsville.

Harrisburg, Pa.—Bids, including plans and specifications, will be received until Apr. 7 by W. H. Lynch, Supt. Streets & Pub. Improv., for an asphalt plant, advertised in Engineering Record.

Lancaster, Pa.—Bids desired until Mar. 29 by Street Com., City Councils (H. D. Deen, Clk.) for the following supplies from May 1, 1915, to May 1, 1916, to include crushed or broken limestone, crushed or broken trap rock, bituminous road binder, road tar per gallon, road oil per gallon, hard brick per thousand, vitr. fire clay or shale paving blocks, firsts and seconds.

New Castle, Pa.—Street improvements to cost about $100,000 is contemplated.

Pittsburgh, Pa.—Bids desired until Apr. 5 by R. J. Cunningham, Co. Controller, for furnishing the following supplies: About 72,250 tons ballast and screenings; 250,000 gals. asphalt for seal-coat macadam road surfaces; 150,000 gals. asphalt road oil; a 10-ton road roller; 2 standard street sweepers, etc.

Williamsport, Pa.—Bids reported desired until Mar. 30 by Chas. E. Coe, Purchasing Agt., for supplying city with asphalt, crushed stone, catch basin covers, v. i. service pipe, 10, 12 and 15 in., Portland cement, iron cross in plates, standard fire hydrants, manhole tops and frames, sewers (all iron inlets), sewer and drain pipes.

★**Wilkesbarre, Pa.**—B. K. Finch, City Engr., writes contracts for paving (bids opened Mar. 12) have been awarded as follows: To State Paving Co., for paving Magnolia Ave., with asphalt $1.82 per sq. yd. Wood, River and Main Sts. with asphalt $1.09 and $1.82; Blackman St. with brick, $2.23; High and Grove Sts. with brick, $2.18; to B. G. Coon Constr. Co., for paving Conyngham Ave., with brick $2.04, and Kidder and Scott Sts. $2.22; to Herrick Contr. Co., brick and macadam on South St., $2.28 and $1.72, and to Frank Anstett for cobblestones, on Foster Lane, 69 cts.

Baltimore, Md.—The Mayor signed bill providing for widening St. Paul St. from Lexington to Hamilton St., and providing for opening Baltimore St. from Garrison Lane to Gwynn's Falls.

Bids reported desired until Mar. 31 by R. Keith Compton, Chmn. Paving Comn. for paving German St., 1700 sq. yds. wood block, 1000 sq. yds. granite block, 12,110 sq. yds. redressed granite block.

Cumberland, Md.—Bids desired until Apr. 5 by Mayor and City Council, for grading, curbing, paving and otherwise improving streets. There are 16 streets to be paved with brick on concrete base, approximately 57,000 sq. yds., requiring about two and a half million brick. Jas. P. Gaffney, City Engr.

Maryland—Following are lowest bids opened Mar. 16 by State Roads Com., Baltimore (Wm. L. Marcy, Secy.), for constructing 2 sections of State Road in Worcester County:

Contr. No. WO-9, Pocomoke, toward Virginia State line, concrete road, about 1.5 miles, Ambler-Davis Co., Harnson Bldg., Philadelphia, Pa., $13,113.

Contr. No. WO-10, Pocomoke toward Stockton, concrete road, about 1.5 miles. Bond & Fideli, Vickers Bldg., Baltimore, $24,872.

Towson, Md.—Bids desired until Apr. 1 by County Comrs. (Chas. P. Fox, Ch. Clk.), for improving roads as follows: Old Court Rd., 1 mile with macadam; Belvidere Ave., concrete or bituminous surfacing; Roland Ave., concrete roadway and curb; Eastern Ave., sheet asphalt and curbing and gutter. W. J. Sucro, Roads Engr.

Greensboro, N. C.—About $100,000 street paving bonds have been sold by City Commission.

Newland, N. C.—Bids reported desired until Apr. 6 by County Comrs., for $150,000 road construction bonds.

★**Wilmington, N. C.**—J. A. Ornell, Co. Aud., writes contract has been awarded to C. R. Humphrey for constructing approximately 7½ miles clay gravel road, 10 ft. wide and spread 8 in. thick. J. L. Becton, Engr., Wilmington.

Anderson, S. C.—Citizens voted $100,000 bonds for pavements in city.

★**Atlanta, Ga.**—Contracts for street improvements costing in all about $200,000 have been awarded by Street Com. of Council as follows: Sand, to Smiley Sand Co., at 50c. per ton; stone gutters, to Pine Mountain Granite Co., 60c. per sq. yd.; Texaco asphalt for repairs, to J. Baker, Jr., Birmingham, Ala., $14.91 per ton; cement, to Caroline Portland Cement Co., at $1.37, and to Southern Stone & Tile Co., new tile 96c. per sq. yd., sheet cement $1.03 per sq. yd., driveways $1.35, for sidewalks (Hexagon) 99c. per sq. yd., and sheet cement $1.03.

Brooksville, Fla.—About $250,000 paving bonds have been sold by County Comrs.

South Jacksonville, Fla.—See "Sewerage and Sewage Disposal."

★**Clearwater, Fla.**—Following are totals of bids recently opened by Jos. N. Drew, City Engr., for paving Ft. Harrison and Drew Aves.: (a) cement grout, (b) asphalt filler: Pinellas Eng. & Constr. Co., Augusta, Ga. (awarded contract), (a) $40,827, (b) $43,350; R. L. Davis, Tampa, (a) $40,997, (b) $43,520; Georgia Eng. Co., Augusta, Ga., (a) $42,239, (b) $44,762; Florida Natl. Vault Co., Lakeland, (a) $46,060, (b) $47,111.

Unit prices of Pinellas Eng. Constr. Co., successful bidders:

Tile storm drains:

300 ft. 10-in., 6 ft. deep	$0.47
200 ft. 10-in., 6 to 8 ft. deep	.59
300 ft. 12-in., 6 ft. deep	.75
200 ft. 12-in., 6 to 8 ft. deep	.90
50 ft. 15-in., 6 ft. deep	1.05
50 ft. 15-in., 6 to 8 ft. deep	1.20
12 street inlets, class A	35.00
6 street inlets, class B	35.00
13,660 ft. concrete combined curb and gutter	.50
100 sq. ft. sidewalks to relay	.10
21,020 sq. yds. brick pavg. cement grout	1.55
21,020 sq. yds. brick pavg. asphalt filler (alternate)	1.67
Time	90 days

★**Philadelphia, Pa.**—Following are 4 lowest bids opened Mar. 16 by Dept. Pub. Wks. for improving the Parkway, from 19th to 22d Sts.: (a) McNichol Paving & Constr. Co., Betz Bldg. (awarded contract); (b) Howard E. Ruch,; (c) Philadelphia Paving Co.; (d) Manwaring & Cummins.

	*(a)	(b)	(c)	(d)
30,000 cu. yds. grading	$0.75	$0.72	$0.80	$1.10
33,000 sq. yds. asphalt paving	1.51½	1.52	1.60	1.60
3,400 sq. yds. vitr. block paving	2.14½	2.27	2.16	2.20
3,500 sq. yds. granite block paving	3.17⅓	3.23	3.44	3.03
800 lin. ft. sewers	6.40	6.86	8.50	8.00
11,800 lin. ft. concrete curb, 8 in.	.55	.72	.60	.63
14,500 sq. yds. concrete footways	.89	.86	.90	.90
28,200 sq. yds. topsoil, 5 in. thick	.31	.45	.40	.40
2,500 lin. ft. water pipe	1.63	1.35	1.70	2.07
10,200 lin. ft. electrical conduits	.63	.48½	.68	.50
Totals	$151,591	$152,924	$164,281	$165,847

★*Items marked thus give the names of parties awarded contracts.*

★**St. Petersburg, Fla.**—Contract for paving with brick 2d St. and 12th Ave. awarded by City Comrs. to Georgia Engineering Co., at $1.49 per sq. yd. for Augusta block and $1.44 per sq. yd. for H. & H. block.

★**Tarpon Springs, Fla.**—Contract for paving with brick several streets in Tarpon Springs awarded by City Council to J. B. McCrary Co. at $1.30 per sq. yd.

Tavares, Fla.—H. H. Duncan, Clk. Co. Comrs., writes that bids will be received Apr. 15 for 200 miles hard surface roads, sand asphalt, rock asphalt, clay and shell.

Birmingham, Ala.—Bids desired until Mar. 31 by Bd. City Commissioners for paving 1st Ave. from end of viaduct to 41st St., about 15,000 sq. yds. paving. Bids desired on asphalt, bitulithic, wood block and brick. Estimated cost, $40,000. Julian Kendrick, City Engr.

Ft. Payne, Ala.—Bids reported desired until Apr. 9 by County Comrs., for surfacing with chert, Collinsvile and Dawson Gap Rd. Probable cost, $7,100. W. S. Keller, State Highway Engr., Montgomery.

Tuscaloosa, Ala.—About $40,000 is to be spent by county for constructing highways leading out of Tuscaloosa and Northport.

Louisville, Ky.—Bids desired until Mar. 29 by Bd. Pub. Wks. (R. G. McGrath, Secy.) for oiling macadam streets on an approximate basis of 1,000,000 sq. yds.

Wickliffe, Ky.—Bids desired by County Clerk, about Apr. 15, for the purchase of $300,000 road bonds recently voted.

Bucyrus, O.—Bids reported desired until Apr. 9 by County Road Comrs. of Dist. No. 1, for $20,000 road construction bonds.

★**Canton, O.**—Contracts for constructing roads awarded by County Comrs. as follows: 3-mile macadam road on Magnolia Sparta Rd. to R. C. Roush, Canton, at $33,585; Massillon-Millersburg Rd. with brick, 3 miles, to Philip Deffenbacher & Sons, Massillon, $68,991; Alliance-Bolton Rd. with macadam, one mile, to Highway Constr. Co., Elyria, at $10,601.

Cleveland O.—Following are totals of lowest bids opened Mar. 17 by the Bd. of Public Service: Ontario St., with dressed block Medina stone, Cleveland Trinidad Paving Co., $45,851; Perkins Ave., 5-in. brick on 6-in. concrete, Baldwin Bros., $8,929; E. 40th St., creosoted wood block, paving oil treated or distilled oil treated, Bentley Bros., $13,181; Cleveland Trinidad Paving Co., $13,674; E. 152d St., 5-in. brick on 6-in. concrete, Enterprise Paving & Contr. Co., $12,374; 4-in. brick on 6-in. concrete, Browning Ave., and E. 131st St., A. M. Pejsa Paving Co., $7,955 and $16,729; E. 40th St., with dressed block, Medina stone, Bentley Bros., $15,422; 24th St., paving (4 different classes of paving), Bentley Bros., $11,610 for dressed block Medina stone; creosoted wood block, Cleveland Trinidad Paving Co., for distillate oil at $10,370, or tar or paving oil, Bentley Bros., at $9,927, or 5-in. brick on 6-in. concrete, A. M. Pejsa Paving Co., $7,033.

Cincinnati, O.—City Engineer Krug estimates cost of improving Eastern Ave. by paving at present grade with granite at $114,582, or to include raising parts of thoroughfare which are in flood district, total cost would be $234,132.

Bids desired until Apr. 1, Director Pub. Service (Parke S. Johnson, Secy) for improving Goodman St. from Eden to Burnett Ave. by paving with bitulithic or granite and asphalt, constructing necessary drains, mains, etc.

Crooksville, O.—H. L. Maddocks, Newark, has prepared plans and specifications for 25,000 sq. yds. of brick paving for Crooksville, and bids will be asked within 60 days.

Defiance, O.—Bids desired until Apr. 5 by County Commissioners (Roger Daoust, Clk.) for grading and paving with waterbound macadam Powers Rd. No. 5, Defiance Township. Length of road, 5300 ft. Width, 16 ft. Cost, $4,925.

Greenfield, O.—H. L. Maddocks, Trust Building, Newark, has been engaged to prepare plans and specifications and superintend construction of 41,000 sq. yds. of brick paving. Preliminary resolutions were passed by Council, Mar. 16, and as soon as necessary legal steps are taken, bids will be received.

Mt. Gilead, O.—Bids desired until Apr. 9 by County Comrs., for macadamizing about 3½ miles Benton Rd., South Bloomfield Township. C. O. Higgins, Co. Aud.

Newark, O.—Bids desired by Dir. Pub. Service, until Apr. 6, for paving N. 11th St. with vitl. clay or shale paving block. About 3590 sq. yds. with 2180 lin. ft. artificial stone combined curb and gutter. C. H. Wells, City. Engr.

New Philadelphia, O.—About $45,000 county road bonds have been sold.

Nova, O.—Bids reported desired until Mar. 27 by J. W. Davidson, Clk. Troy Township, for $26,000 road improvement bonds.

Ohio—Bids desired until Apr. 2 by State Highway Dept., Columbus (Jas. R. Marker, Comr.), for furnishing material and improving highways, to include constructing bridges and culverts, grading and paving roads in counties as follows:

Allen Co., Sec. "G," Lima-Ottawa Rd., German and Bath townships, with brick, width of pavement 18 ft., width of roadway, 28 ft. Length 2506 ft. Cost $11,912.

Champaign Co., Sec. "K," Troy-Urbana-Southern Rd., Concord township, with concrete, width of pavement 14 ft., width of roadway 26 ft. Length 5280 ft. Cost $11,571.

Clark Co., Sec. "H," Springfield-Washington C. H. Rd., Harmony township, with waterbound macadam, width of pavement 16 ft., width of roadway 26 ft. Length 15,158 ft. Cost $26,518.

Defiance Co., Sec. "C," Hicksville-Defiance Rd., Mark township, with concrete, width of pavement 16 ft., width of roadway 26 ft. Length 21,293 ft. Cost $51,776.

Erie Co., Sec. "L," Cleveland-Sandusky Rd., Berlin, Huron and Perkins townships, with concrete, width of pavement 16 ft., width of roadway 26, 28 and 30 ft. Length 24,099 ft. Cost $81,221.

Fayette Co., Sec. "G," Springfield-Washington C. H Rd., Union township, with brick, width of pavement 16 ft., width of roadway 31 ft. Length 823 ft. Cost $2,872.

Hancock Co., Sec. "E," Lima-Sandusky Rd., Union township, with waterbound macadam, width of pavement 16 ft., width of roadway 26 ft. Length 5400 ft. Cost $8,594.

Huron Co., Sec. "K," Plymouth-Norwalk Rd., Norwalk and Ridgfield townships, with concrete, width of pavement 10 ft., width of roadway 26 ft. Length 5630 ft. Cost $12,920.

Lake Co., Sec. "H," Cleveland-Buffalo Rd., Mentor and Willoughby townships, brick, width of pavement 18 ft., width of roadway 27 ft. Length 24,759 ft. Cost $132,363.

Montgomery Co., Sec. "I," Dayton-Troy Rd., Harrison township, with brick, width of pavement 15 ft., width of roadway 30 ft. Length 7834 ft. Cost $33,310.

Paulding Co., Sec. "E," Defiance-Delphos Rd., Brown township, with waterbound macadam, width of pavement 14 and 16 ft., width of roadway 24 ft. Length 5,296 ft. Cost $10,502.

Paulding Co., Sec. "D," Continental-Pauling Rd., with waterbound macadam, width of pavement 14 ft., width of roadway 24 ft. Length 5412 ft. Cost $7,805.

Putnam Co., Sec. "H," Van Wert-Ottawa Rd., Monterey and Jackson townships, with waterbound macadam, width of pavement 16 ft., width of roadway 26 ft. Length 10411 ft. Cost $14,264.

Sandusky Co., Sec. "F," Fremont-Castalia Rd., Riley and Townsend Townships, with waterbound macadam, width of pavement 16 ft., width of roadway 26 ft. Length 10,551 ft. Cost $18,630.

Shelby Co., Sec. "B," Piqua Sidney Rd., Clinton and Sidney Townships, with waterbound macadam, width of pavement 16 ft., width of roadway 26 ft. Length 9393 ft. Cost $17,809.

Tuscarawas Co., Sec. "I," New Comerstown-Uhrichsville Rd., Clay Township, with brick, width of pavement 15 ft., width of roadway 26 ft. Length 5280 ft. Cost $22,094.

Tuscarawas Co., Sec. "J," New-Philadelphia-West Lafayette Rd., York Township, with brick, width of pavement 14 ft., width of roadway 29 ft. Length 10,560 ft. Cost $34,938.

Tuscarawas Co., Sec. "K," Wooster-Canal Dover Rd., Franklin Township, with brick, width of pavement 15 ft., width of roadway 28 ft. Length 6310 ft. Cost $23,108.

Warren Co., Sec. "B," Cincinnati-Chillicothe Rd., Harlan Township, with waterbound macadam, width of pavement 14 ft., width of roadway 26 ft. Length 11,370 ft. Cost $17,529.

Williams Co., Sec. "J," Bryan-Pioneer Rd., Madison Township, with waterbound macadam, width of pavement 14 ft., width of roadway 24 ft. Length 5433 ft. Cost $10,351.

Bureau of Maintenance and Repair—Contr. 21, includes grading shoulders and ditches, constructing waterbound gravel side drive, 8 ft. in width, length 39,200 ft.; constructing waterbound macadam, 16 ft. in width, length 573 ft.; also surfacing with tar and screenings, 16 ft. in width, length 16,473 ft. Surface treating with screenings, 16 ft. in width, length 22,727 ft., and making other repairs, a section of the National Rd. (West), Franklin and Prairie Townships, Franklin County. Total length of road 40,700 ft. Cost $19,396.

Paving roadway with concrete of Sec. "L," Mansfield-Galion Rd., Madison Township, Richland County, width of pavement 20 ft. Length 3883 ft. Cost $15,257.

Ohio.—Bids were opened Mar. 12 as follows by Jas. R. Marker, State Highway Comr., Columbus, for improvement of roads:

Columbiana County, Sect. O of Cleveland-East Liverpool Road, in Center Township, to include construction of bridges and culverts, grading roadway and paving with brick, length .74 mile; estimated cost $14,494 (bids opened on this road Mar. 12 withdrawn, to be readvertised).

★Erie County, Ohio, Sect. K, of Cleveland-Sandusky Road, Vermillion Township, constructing bridges and culverts, grading roadway and paving with concrete, length 4.32 miles, awarded to Buckeye Eng. Co., Norwalk, at $64,400. Next 3 lowest bids: C. E. Wilson & Sons, Barnesville, $64,450; Fred R. Jones Co., Cleveland, $65,204; McGarry & Sparks, Xenia, $65,769.

★Knox County, Sect. G, Mt. Vernon-

Coshocton Road, Monroe Township, to include construction of bridges and culverts, grading roadway and paving with water-bound macadam and brick, length 3.08 miles, awarded to Jones Constr. Co., Mt. Vernon, at $39,850. Next 3 lowest bids: Ohio Valley Constr. Co., Cincinnati, $43,-400; Frank Roof & Son, Sunbury, $43,588; Ironton Transfer & Storage Co., Ironton, $43,994.

★Mercer County, Sect. F, St. Marys-Ft. Wayne Road, Dublin Township, to include constructing bridges and culverts, grading roadway and paving with concrete, length 1.6 miles, awarded to Isaac Putnam, Van Wert, at $19,000. Next 3 lowest bidders: Trippeer & Son, Peru, Ind., $21,000; Strodbeck Bros., Middletown, $21,000; R. Stone, Lima, $21,150.

Tuscarawas County, Sect. J, New Philadelphia-West Lafayette Road, York Township, to include constructing bridges and culverts, grading roadway and paving with brick, length 2 miles,; estimated cost $32,823. (Bids rejected, readvertised.)

Petersburg, O.—Bids desired until Apr. 1 by Trustees Springfield Township (L. W. School, Clk., Petersburg) for improving Petersburg and New Springfield Rd. by paving with brick-slag, macadam or gravel construction, with or without glutrin treatment, in all about 16,000 ft.

Painesville, O.—Bids reported desired until Apr. 12 by County Comrs., for $17,-000 bonds, the proceeds of which will be used for paving Arnold and Ridge Rd. with brick. W. A. Davis, Co. Aud.

★**Troy, O.**—Contract awarded Mar. 17 for paving Simpson and Crawford Sts. with Metropolitan brick at $21,318. M. A. Gantz, City Engr.

Urbana, O.—Bids desired until Apr. 1 by H. M. Crow, City Clk., for paving of N. Main St., about 18,400 yds., with brick, sheet asphalt, asphalt block or concrete, all on 6-in. concrete base, curb to be of stone and cement.

Emmett F. Sweetman, City Engr., writes that it is also proposed to pave Sciota St., 12,400 sq. yds.; S. Main St., 23,600 sq. yds., and Miami St., 8600 sq. yds., with same material mentioned above; total cost of paving proposed $150,880. Bids for bonds to be received Apr. 8.

★**Youngstown, O.** — Contract awarded Mar. 15 by County Comrs. for paving West Rd. to I. W. Coy, of Calla, at $8,444. Arthur L. Schmidt, Co. Engr.

Bids desired until Mar. 31 by Road Comrs., Dist. No. 1, Youngstown (Frank Agnew, Secy.) for $66,000 bonds issued for the purpose of improving roads in said district.

City Council voted to pave Japan St. and Homewood Ave.

Brownstown, Ind.—Bids reported desired until Apr. 5 by County Commissioners for constructing medium weight road graders. Albert Leudtke, Co. Aud.

Frankfort, Ind.—Bids desired until 10 A. M. Apr. 1, for improving 2 streets and one alley with brick, concrete, asphaltic concrete or bituminous macadam involving 13,690 sq. yds. roadway, 41,000 sq. ft. cement sidewalk, 10,000 ft. curb, 3200 ft. 10 and 12-in. tile sewer and other work. Estimated cost $38,170. R. H. Boynton, City Engr.

Gary, Ind.—See "Miscellaneous."

Indiana.—Bids desired by the County Comrs. for constructing roads as follows:

Until Apr. 5:

Salem, 2 roads in Washington Township. Ira H. Rutherford, Co. Aud.

Mt. Vernon, gravel roads in Lynn and Robb townships. Jos. R. Haines, Co. Aud.

Valpariso, 2 gravel roads in Westchester Township and one in Pleasant Township. C. A. Blachly, Co. Aud.

Until April 6:

Martinsville, roads in Ashland and Brown townships. Sam Watson, Co. Aud.

Winchester, roads in Washington, Nettle Creek, Greensfork and White River townships, 5 in all. C. E. Tillson, Co. Aud.

Delphi, gravel roads in Burlington and Tippecanoe townships. M. G. Haun, Co. Aud.

Until Apr. 7:

Shelbyville, constructing gravel road in Shelby Township and crushed stone road in Libert Township. F. W. Fagel, Co. Aud.

Bluffton, gravel road on County line between Marion Township, Allen County and Jefferson Township, Wells Township, about 1½ miles in length. C. T. Kain Co. Aud.

Salem, Ind.—Bids reported desired until Mar. 29 by County Comrs., for furnishing a mounted stone crusher with elevator and straight-chute screen complete. Ira H. Rutherford, Co. Aud.

Port Huron, Mich.—Bids reported desired until Apr. 1 by County Road Comn. (Albert P. Ryan, Clk.) for constructing 3 miles of State Trunk Line, class "E," road on the Port Huron and Yale State Trunk Line.

Ancona, Ill.—Bids reported desired until Apr. 1 by Town Comrs., Town of Reading, at office of C. E. Clayton, Town Clk., at Ancona, for furnishing material and constructing approximately 20 miles macadam road.

Chicago, Ill.—Bids desired until Mar. 31 by Bd. Local Improv. (Edw. J. Glackin, Secy.) for improving portions of N. Central Park Ave., Gale, Edmunds, W. 118th and a number of other streets. Bids desired on vitr. brick, Portland cement concrete, repressed vitr. brick, asphalt, asphaltic macadam, etc.

Danville, Ill.—All bids opened by Bd. Supervisors for $1,500,000 road bonds have been rejected; according to reports new bids will be received.

Illinois.—Bids desired until Mar. 31 by State Highway Comn., Springfield (Wm. M. Marr, Ch. Engr.) for the following proposed State Aid work. All cement to be furnished by the State except as noted (★):

Morgan County, Sec. "A," concrete road, length 4468 ft. Cost $10,529.

Clinton County, Sec. "A," concrete road, length 5550 ft. Cost $9,598.

Effingham County, Sec. "A," concrete road, length 7560 ft. Cost $9276.

Piatt County, Sec. "A," brick road, length 5000 ft. Cost $13,106.

Peoria County, Sec. "B," concrete road, length 10,452 ft. Cost $30,458.

Union County, Sec. "A," gravel road, length 3200 ft. Cost $3130.*

Johnson County, Sec. "A," bridges, 205 cu. yds. reinforced concrete. Cost $2,760.*

★**Moline, Ill.**—Contract awarded by Bd. Local Improv. Mar. 17 for paving in 4th St. Pavement Dist., to A. E. Rutledge, Rockford, as follows: 6090 cu. yds. excav., 35 cts.; 9 intake basins, ea. $18; 6433 ft. concrete curb, 43 cts.; 9610 sq. yds. 5-in. concrete base, 55 cts.; 9610 sq. yds. brick pavt., 2-in. sand cushion, concrete base 1:3:6, 5-in. asphalt fill, $1.43; 816 ft. 12-in. sewer pipe storm drain, 50 cts.: total $24,-520. Next 3 lowest bids: McCarthy Improv. Co., Davenport, Io., $24,915; Independent Contr. Co., Davenport, Ia., $25,-340; Masters & Briggs, Shenandoah, Ia., $25,822.

Ottawa, Ill.—The County Comrs. have appropriated $50,000 for hard roads.

Paris, Ill.—Bids reported desired until Apr. 9 by Comrs. of Highways of Elbridge Township, at Town House, Elbridge Township, 3 miles south of Vermillion, for constructing 3800 lin. ft. gravel on Nevins Rd. and 6454 on Sandford Rd.; contract to include approximately 2800 cu. yd. earthwork and several new concrete culverts. For further information address County Superintendent of Highways at Paris.

Peoria, Ill.—Bids desired until Mar. 29 by Bd. Local Improv. (S. W. Eckley, Pres.) for paving Linn St., requiring approximately 8175 sq. yd. brick pavement on a 5-in. concrete foundation, etc.

★**Rockford, Ill.** — Contracts awarded Mar. 15 by W. W. Bennett, Pres. Bd. Local Improv., for furnishing material and paving with brick portions of streets as follows: To F. K. Carrico, of Rockford, for Melrose St., 3450 cu. yds. excav., 6,500 sq. yds. brick pavt. on concrete base, and 5,270 lin. ft. cement curb and gutter, and to A. E. Rutledge, of Rockford, for Clinton St., 2930 cu. yds. excav., 5,900 sq. yds. brick pavt. on concrete base, and 4,690 lin. ft. cement curb and gutter. Edwin Main, City Engr.

Kaukauna, Wis.—Bids reported desired until Apr. 5 by City Clerk for improvements of portions of Wisconsin Ave. and Main, Canal and Lawe Sts. and about 12 blocks of asphalt, brick or cement pavt.

Nekoosa, Wis.—Bids desired by J. E. Gillespie, Engr., Grand Rapids, Wis., until Mar. 30 for paving Prospect Ave. with one course concrete, plain, on sand foundation. Estimated quantities: 5462 sq. yds. pavt., average thickness, 7 in., cement will be furnished F. O. B. cars at Nekoosa. No local materials available, special rate of ¼ ct. per ton mile on all Railroads except C. & North Western Ry.; 1600 cu. yds. grading in separate bid.

Oconomowoc, Wis.—Bids reported desired until Apr. 6 for furnishing material and constructing all cement and concrete sidewalks during the season of 1915. Clarence H. Schoenike, City Clk.

Milwaukee Wis.—Bids were opened Mar. 5 by H. J. Kuelling, County Highway Comr., Milwaukee, for Watertown, Silver Springs and Howell Roads, as follows (county furnishes cement to contractor, delivered on work):

★Watertown Road, awarded to White Constr. Co., Ry. Exchange Bldg., Milwaukee, as follows: 4500 cu. yd.: excav., 65 cts.; 33,000 sq. yd. sheet asphalt on concrete base, $1.65; 43 cu. yd. concrete culverts, $10; 10 per cent for extra work; total, $57,805. Badger Constr. Co., Ry. Exchange Bldg., Milwaukee, bid also for the work $60,192.

★Silver Springs and Port Washington Roads awarded to Gumz, Gutkuecht & Wusson, M. & M. Bank Bldg., Milwaukee, as follows: 12,600 cu. yd. grading (excav.), 48 cts.; 42,700 sq. yd. concrete pav., type A expansion joints, 71 cts., or 42,700 sq. yd. type B felt only, 69 cts.; 195 cu. yd. concrete culverts, $8; 10 per cent for extra work; total if type A is used, $37,925, or for type B, $37,071.

★Howell Road awarded to Gumz, Gutkuecht & Wusson, M. & M. Bank Bldg., Milwaukee, as follows: 8950 cu. yd. excav., 48 cts.; 21,200 sq. yd. concrete pav., Type A expansion joints with steel plates, 71 cts.; 21,200 sq. yd. concrete pav., Type B joints, with felt only, 69 cts.; 90 cu. yd. concrete culverts, $8; 10 per cent for extra work; total, $20,068 for Type A, or $19,644 for Type B.

★**Cedar Rapids, Ia.**—Contracts have been awarded as follows by City Council for paving (bids opened Mar. 19):

★Contract 1, awarded to Ford Paving Co., Cedar Rapids, at $17,898, for 9762 sq. yd. vitr. brick block on a 4-in. concrete foundation, with sand fill, on 16th and 8th Aves., 11 and 6th Sts.

★Contract 2, awarded to Ford Paving Co., Cedar Rapids, at $91,932, for vitr. brick block on a 6-in. foundation, with asphalt filler, to include 42,400 yd. of paving, 14,000 cu. yd. grading, 100 cu. yd. solid rock excav., and 100 cu. yd. of loose rock excav.

★Contract 3, awarded to Western Improv. Co., Racine, Wis., at $39,271, for asphaltic concrete, 2-in. wearing surface, granite chips, 4-in. foundation to include 25,200 sq. yd. paving, 8000 cu. yd. grading, 50 cu. yd. solid rock excav. and 50 cu. yd. loose rock excav.

★Contract 4, awarded to Percy P. Smith, Cedar Rapids, for curb and gutter, at $8,015 for east side and $1,990 for west side.

Davenport, Ia.—The following paving work contemplated by city: Asphaltic concrete, 33,000 sq. yd.; sheet asphalt, 9000 sq. yd.; brick, 10,500 sq. yd.; concrete alleys, 9,000 sq. yds.; all on 5-in. concrete foundation, with concrete curb and gutters; total cost, $143,000. This paving may all be let at one time by Bd. Pub. Wks. First letting about Apr. 20. Address Allen R. Boudinot, City Engr.

Dubuque, Ia.—Official reports state bids will be opened by Bd. of Supervisors at the office of John Ingraham, Co. Aud., at 2 p. m. on Mar. 31, for grading and surfacing with 15-ft. chert-gravel, Iowa Port Road, from Dyersville to Dubuque, about 20.4 miles; approximate cost $75,000; also same time and place for 75 concrete culverts, 4-ft. span and under 132,500 cu. yds. unclassified excav., 11,000 lin. ft. concrete or all wood guard rail, 650 ft. tile drain, good small shovel and industrial R.R. proposition. Joint U. S. Government and County Fund of $90,000. Work in charge of U. S. Office of Public Roads Engineers. B. H. Burrell, U. S. Senior Highway Engr., in charge at Dubuque.

Eagle Grove, Ia.—Bids reported desired until Mar. 30 by Sam. Middleton, City Clerk, for 52,625 sq. yds. paving, asphaltic concrete, sheet asphalt or concrete.

Forest City, Ia.—Bids reported desired until Apr. 16 by Town Clerk, for paving with concrete, asphaltic concrete or brick.

Keokuk, Ia.—Bids reported desired until Mar. 30 by City Clerk, for 8000 sq. yds. 7-in. concrete pavt., 1½ miles 6-in. x 18-in. concrete curb and 7200 cu. yds. excav. J. F. Winters, City Engr.

Red Oak, Ia.—Bids reported desired until Mar. 31 by City Clerk, for paving portions of 5th and 8 other streets with brick, concrete, asphaltic concrete or sheet asphalt.

Blue Earth, Minn.—Carl L. Hagger, Co. Surveyor and City Engr., writes that a large amount of paving work is contemplated.

Duluth, Minn.—Woodland Ave. is to be paved with concrete by city; cost, about $22,890.

Ottawa, Kan.—C. S. Pugh, City Engr., writes it is proposed to pave Ash and Cherry Sts. with brick, with Portland cement concrete curb and gutter.

★**Topeka, Kan.**—Contracts for paving awarded by City Comn. as follows: 21 blocks of brick pavements to Olson & Schmidt, St. Joseph, Mo., at $78,467, and asphalt pavements to J. A. Ramsey, Lawrence, at $57,600.

Jamestown, N. D.—Bids reported desired until Apr. 5 by County Aud. for road work to cost about $8,000.

Fargo, N. D.—Bids desired until Apr. 8, for 45,000 sq. yds. paving. The following materials are specified: brick, creosote block, asphalt, bitulithic, bituminous concrete, Portland cement concrete. A. R. Watkins, City Aud., Frank La F. Anders, City Engr.

★**Yankton, S. D.**—Contract has been awarded to M. L. Flinn Paving Co., Sioux City, Ia., for paving Douglas Ave. with concrete at $1.45 per sq. yd. Stanley H. Edmunds, City Engr.

Butte, Mont.—City Council voted to pave Arizona St.; cost $25,000.

★**Missoula, Mont.**—Contract for paving with bitulithic Stevens St., awarded by City Council (bids opened Mar. 10) to J. C. Maguire, Lewiston, at $28,771.

★**St. Louis, Mo.**—Contracts have been awarded to Webb Kunze Constr. Co., of St. Louis, by Pub. Service Bd. on bids opened Mar. 5 for brick paving on following streets: Scanlan, Ivanhoe and Tyler Aves., to include about 17,000 cu. yds. grading, 14,000 ft. granite curb and 25,000 sq. yds. brick pavement; total cost about $57,000.

Cameron, Tex.—About $1,000,000 bonds have been sold for road improvements in Bond Dist. No. 6.

Corpus Christi, Tex.—Contract is about to be let by city for pavements, to cost about $100,000.

Houston, Tex.—Bids desired Apr. 12 for paving Main St. from G. H. & S. A. tracks to Bellaire Ave.; estimated cost $187,000. E. E. Sands, City Engr.

★Contract for paving with Uvalde rock Chenevert St. awarded by City Council to Horton & Horton, Houston, at about $12,000.

Longview, Tex.—D. Shaw, County Clk., writes that citizens voted Mar. 18 to issue $300,000 bonds for road improvements. Engineer not yet selected.

Marshall, Tex.—Bids desired until Apr. 6 by County Comr.'s Court, for constructing approximately 20 miles graveled and macadam highway in Road Dist. No. 1. N. P. Turner, Highway Engr., Marshall.

★**Durant, Okla.**—Contract for paving Main St. awarded by City Council to Ammons & Baum, Durant, at $22,754

★**Bellingham, Wash.**—Contract for paving with concrete Permanent Highway No. 2 awarded by Bd. County Comrs. to Booker & Campbell, Bellingham, at $11,400.

Concrete, Wash.—Contract is about to be let for paving Main St.; cost about $10,800.

Curtis, Wash.—Bids reported desired until Apr. 10 by County Comrs., Chehalis, for constructing 2 miles concrete highway near Curtis. D. Neville, Co. Engr.

★**Everett, Wash.**—Contract was awarded Mar. 15 for constructing 2½ miles of Beverly Park Highway to Atlas Constr. Co., $13,716. Next 3 lowest bidders: Bancroft & Morgan, $16,803; Quigg Constr. Co., $16,880; Shepard & Cressman, $16,-890. Hans Munn, Jr., Co. Engr.

Bids reported desired until Apr. 5 by County Commissioners for constructing 8700 ft. Permanent Highway No. 12 from the North Trunk Rd. towards Edmonds. H. Mumm, Jr., Co. Engr.

North Yakima, Wash.—Bids reported desired by Chas. E. Barrett, Co. Aud. until Apr. 5 for constructing Permanent Highway No. 6-A, beginning 10 miles northeast of this city on the Nachez Rd. Water-bound macadam specified; also grading and graveling 4 miles Permanent Highway No. 14, commencing 1½ miles south of Wapato and ending 4 miles west of Toppenish. O. E. Brashears, Co. Engr.

Seattle, Wash.—Contract is about to be let by Bd. Pub. Wks. for paving Rainier Ave. with brick, cost about $118,000.

Plans and specifications have been completed by A. H. Dimock, City Engineer, for pavements as follows: 16th and 1st Aves., Massachusetts, W. Stacey Sts.; cost about $89,500.

Plans have been approved for paving W. Stacey St., $13,000; W. Hanford St., $14,-500, and Rainier Ave., $78,000.

City Engineer has completed estimates for grading and filling Alki Ave., cost $99,000, and grading, etc., Fauntleroy Ave., cost $76,000; also paving N. 45th St., $10,000; paving E. Valley St., $10,600.

Sedro-Woolley, Wash. — Contract is about to be let by county for paving with concrete 2 miles Highway No. 2.

Washington.—All correspondence pertaining to Washington State Highway Dept. should be addressed to Wm. R. Roy, State Highway Comr., Olympia.

Portland, Ore.—Following 3 lowest bids opened for paving with basalt stone blocks on E. Adler St.: Giebisch & Joplin, $15,346; Warren Constr. Co., Portland, $15,660, and Jeffery & Bufton, Portland, $16,339.

Oroville, Cal.—E. J. Mitchell, Clk. Bd. City Trus., writes the question of paving about 21 blocks under consideration with bitulithic on concrete base, concrete curb and gutters. Protest to be heard Apr. 5. S. J. Norris, City Engr.

★**San Francisco, Cal.**—Contract for paving Taraval St. awarded by Bd. Pub. Wks. to Sunset Constr. Co., $23,900.

★**Moline, Ill.**—Following are 4 lowest bids opened Mar. 17 by Bd. Local Improv. (Lyle Payton, Secy.) for paving 15th Ave. Dist.: (a) A. E. Rutledge, Rockford (awarded contract); (b) J. F. McMahon, St. Louis, Mo.; (c) McCarthy Improv. Co., Davenport, Ia.; (d) Western Improv. Co., Racine, Wis.

	*(a)	(b)	(c)	(d)
13,500 cu. yds. excavation	$0.35	$0.40	$0.37	$0.40
27 intake basins	18.00	20.00	30.00	30.00
2 manholes	20.00	20.00	50.00	40.00
20,270 ft. concrete curb	.43	.50	.37	.50
1 sack—batch concrete—for base	1.50	3.00	...	2.50
28,000 sq. yds. 5-in. concrete base	.55	.65	.55	.55
28,000 sq. yds. brick pavement, asphalt filler, and 2-in. sand cushion	1.41	1.30	1.45	1.42
28,000 sq. yds. brick pavement relaid	.50	1.30	...	...
1,840 ft. 18-in. sewer pipe storm drain	.70	.70	.88	1.25
1,650 ft. 12-in. sewer pipe storm drain	.50	.60	.52	1.00
372 ft. 10-in. sewer pipe storm drain	.45	.40	.47	.75
Totals	$71,127	$73,141	$73,456	$75,814

★*Items marked thus give the names of parties awarded contracts.*

San Jose, Cal.—Roy E. Walter, City Clk., writes that it is proposed to pave about 10 miles of street with asphalt on concrete, with concrete curb and gutter, to include William, San Salvador, Reed, etc. M. Maggini, City Engr.

Visalia, Cal.—About $145,000 bonds have been sold for constructing highways near Visalia.

Salt Lake City, Utah.—The House passed bill appropriating $100,800 for maintenance and construction of state highways.

★**Lewiston, Idaho.**—Contract for constructing road in Lewiston Orchards awarded to Warren Constr. Co., Portland, Ore., at about $100,000.

Sand Point, Idaho.—Bids reported desired until Mar. 30 by Robt. S. McCree, Clk. Bd. County Comrs., for constructing 9½ miles road designated as Meadow Creek Project, located in the Pend Oreille National Forest. For further information address F. A. Silcox, Dist. Forester, Sand Point.

Potton, Brome County, Que.—Bids desired until Apr. 6 by J. N. Labell, Secy.-Treas., Municipality of the Township of Potton, Brome County, for constructing gravel and stone roads as follows: Masonville to Creek Rd., 3 miles; Kings Highway, 1 mile; Mansonville to Highwater, 2.8 miles; Highwater to North Troy, 1 mile; Highwater to Sutton Rd., .8 mile; Pine Hill Rd., 3 miles.

★**New Westminster, B. C.**—Contract for paving Columbia St. awarded to Hassam Paving Co., at $21,000.

STREET CLEANING AND GARBAGE DISPOSAL.

Items Arranged Geographically

Yonkers, N. Y.—Following are reported to be bids opened by Bd. Contract and Supply, Mar. 15 for construction of incinerator: V. J. Booth Constr. Co., New York, $51,512; Geo. T. Kelly, $63,000; John M. Voss, $64,416; Matt Kelly Constr. Co., $64,750; Stevenson & Murray Co., $68,250, and Lynch & Larkin, $71,050. D. F. Fulton, City Engr.

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Items Arranged Geographically

Retaining Wall—Buffalo, N. Y.—Bd. of Aldermen has ordered bond issues as follows: For wall along Bird Island pier, $50,000, and retaining wall, Georgia St. to Jersey St., $270,000.

★**Excavator—Atlantic City, N. J.**—Contract awarded Mar. 11 for constructing one drag line or slack line excavator, capable of excavating 800 cu. yds. per day, for use at the Doughty Pond, to Insley Mfg. Co., Bulletin Bldg., Philadelphia, Pa., at $20,500. L. Van Gilder, Engr. and Supt. Water Dept.

Beach Protection—Cape May, N. J.—Four lowest bids opened Mar. 22 by Thos. W. Millet, City Recorder, for renewal, repair and additions to boardwalk, beach drive and bulkhead, affording additional protection to beach front: Atlantic Constr. Supply Co., Atlantic City, $55,489.40; Cantrell Const. Co., Camden, $55,505.75; Pugh & Hubbard, $58,309 65; C. R. Simpson, Huntington, Pa. $58,840.32. Approximate quantities: 5000 piles, 11,000 tons of fill and 2000 cu. yds. of foreign gravel. L. C. Ashburn, Acting Chmn. Com. of Streets & Highways; L. E. Miller, Jr., City Engr.

★**Dike, Sluice Gates, Etc.—Elizabeth, N. J.**—Contract was awarded Mar. 18 by Union County Mosquito Extermination Comn., 25 Rahway Ave., Elizabeth, for constructing a mile or more of dike on the Elizabeth Meadows, and sluice gates or tide gates and spillways on said meadows, to the U. S. Drainage & Irrigation Co., 17 Battery Pl., New York.

Dredging—Beaufort, N. C.—Following are bids opened Mar. 9 by U. S. Engineer, Wilmington, for dredging (a) Neuse River, (b) waterway from Pamlico Sound to Beaufort Inlet, and (c) Beaufort Harbor: Simons Mayrant Co., Charleston, S. C., (a) and (b) 16.8 cts.; (c) 30 cts; Coastwise Dredging Co., Norfolk, Va. (a) and (b) 13.9 cts.; Norfolk Dredging Co., Norfolk, Va. (a) 15.69 cts.; Rickards Dredging Co., Philadelphia, Pa. (a) 5 cts.; (b) 10.5 cts. (c) 12.8 cts.

Levee—Augusta, Ga.—Plans being prepared by Nisbet Wingfield, Comr. Pub. Wks., for building a portion of levee between the C. and W. C. Railroad and Sand Bar Ferry, and mouth of Butlers Creek to be between 6 and 7 miles long.

Wharves—Jacksonville, Fla.—Lowest bid opened Mar. 20 by Bd. Port Comrs. (F. Bruce, Ch. Engr.) for constructing timber marginal wharves at Municipal Terminal Docks, requiring about 110,000 sq. ft. work, was submitted by E. W. Parker, of Tampa, at $13,117.

River Improvement — Tiffin, O.—Bids desired until Apr. 20 at the office of Wm. Heller, Dir. Pub. Service, for deepening, widening and straightening Sandusky River. The work consists of earth and rock excavation and a concrete retaining wall requiring approximately 56,900 cu. yd. earth excavation, 1000 cu. yd. rock excavation, 4100 cu. yd. reinforced concrete or 8125 cu. yd. plain concrete, 8820 ft. w. i. 2-in. pipe for railing on top of wall.

Dredging—Hartford City, Ind.—Bids reported desired until Apr. 20 by Frank Wallace, Supt. Constr., for dredging Lick Creek; estimated cost $48,000.

★**Drainage—Hart, Mich.**—Contract reported awarded by Comrs. of Oceana and Newaygo Counties to Hugh Woodman of Sandusky for drainage work in Leavitt and Beaver Townships, at $13,000. The bridge work was let to the Beach Mfg. Co.

★**Ditch Work—Owantonna, Minn.**—Contract has been awarded to Clark Constr. Co., of Clinton, Ia., for constructing Judicial Ditch No. 2, consisting of excavation of main ditch, 3 laterals and 3 branch ditches, containing about 240,447 cu. yd. excav., 30 corrugated metal culverts and a highway bridge. M. J. Parcher, Co. Aud.; Geo. A. Ralph, Engr., 410 Shubert Bldg., St. Paul.

★**Irrigation—St. Ignatius, Mont.**—Contract awarded to A. L. Markus, of Polsom, for earthwork on Pablo Lateral A and sub-laterals of the Flathead Project, Montana, for about 110,000 cu. yd. for a total of $16,570.

Jetty and Dike Work—Galveston, Tex.—Following are totals of bids as opened Mar. 16 by Lieut.-Col. C. S. Riche, Corps Engrs., U. S. A., Galveston, for jetty and dike work at Aransas Pass, Tex.: Chas. Clarke & Co., Galveston, $282,692; David V. Howell, Monroe, N. Y., $313,541; David M. Picton & Co., Galveston, $323,834; Edw. Gillen Dock, Dredging & Constr. Co., 1112 N. Erie St., Racine, Wis., $325,280; Louisiana Constr. Co., Baton Rouge, La., $388,330.

Unit prices of Chas. Clarke & Co., Galveston, Tex., lowest bidder, as follows: For north jetty repairs, 10,700 tons small riprap from 15 to 200 lbs., 3600 tons large riprap from 200 lbs. to 3 tons placed in the core of work, and 20,600 tons large riprap from 3 to 7 tons placed in slopes of work, all at $2.98 per ton; and 5500 tons crest stone placed in work $3.98; total, $125,892. For stone dike, 37,200 tons riprap from 15 to 200 lbs. placed in work, and 11,800 tons quarry refuse filling placed in trenches, $3.20 per ton; total, $156,800.

Canal Excav.—Grand Junction, Colo.—Bids were opened Mar. 10 by U. S. Reclamation Service, Grand Junction, for about 640,000 yds. canal excav. situated in the vicinity of Grand Junction and Fruita, Colo., and following are totals of 4 lowest bids received: Mendenhall, Straw & Bird Co., Springville, Utah, $100,261; Reynolds Ely Constr. Co., Springville, Utah, $103,519; Mesmer & Rice, Los Angeles, Cal., $106,638; Winston Bros. Co., Minneapolis, Minn., $106,978.

Unit prices of lowest bidder, Mendenhall, Straw & Bird Co., Springville, Utah:

Schedule 1:	
119,000 cu. yds. excav., Class 1....	$0.16
1,500 cu. yds. excav., Class 2....	.32
1,000 cu. yds. excav., Class 3....	.44
100 cu. yds. excav., Class 4....	.70
210,000 sta. yds. overhaul.....	.02
Total.....	$24,230
Schedule 2:	
119,300 cu. yds. excav., Class 1....	$0.14
2,500 cu. yds. excav., Class 2....	.32
500 cu. yds. excav., Class 3....	.44
100 cu. yds. excav., Class 4....	.70
15,000 sta. yds. overhaul.....	.02
Total.....	$18,092
Schedule 3:	
78,000 cu. yds. excav., Class 1....	$0.14
1,500 cu. yds. excav., Class 2....	.32
400 cu. yds. excav., Class 3....	.44
100 cu. yds. excav., Class 4....	.70
15,000 sta. yds. overhaul.....	.02
Total.....	$11,946
Schedule 4:	
90,000 cu. yds. excav., Class 1....	$0.15
5,000 cu. yds. excav., Class 2....	.32
1,000 cu. yds. excav., Class 3....	.44
100 cu. yds. excav., Class 4....	.70
25,000 sta. yds. overhaul.....	.02
Total.....	$16,110
Schedule 5:	
85,000 cu. yds. excav., Class 1....	$0.135
100 cu. yds. excav., Class 2....	.32
50 cu. yds. excav., Class 3....	.44
10 cu. yds. excav., Class 4....	.70
Total.....	$11,536
Schedule 6:	
75,000 cu. yds. excav., Class 1....	$0.135
100 cu. yds. excav., Class 2....	.32
50 cu. yds. excav., Class 3....	.44
10 cu. yds. excav., Class 4....	.70
Total.....	$10,186
Schedule 7:	
60,000 cu. yds. excav., Class 1....	$0.135
100 cu. yds. excav., Class 2....	.32
50 cu. yds. excav., Class 3....	.44
10 cu. yds. excav., Class 4....	.70
Total.....	$8,161
Grand total.....	$100,261

Drainage—Taft, Colo.—J. F. Harrington, Secy. Taft Drainage Co., writes that final survey is now being made for drainage canal: about 41,600 acres to be reclaimed; cost, $75,000 to $100,000. Engineer, J. H. Ludlum, of Kissimmee.

Drainage—Roswell, N. M.—Plans and specifications have been prepared for drainage of lands, comprising what is known as the Pecos Valley of Chaves County, and work will begin as soon as bonds authorized and issued under New Mexico laws are disposed of. W. H. Vaushelet, Designing Engr.

Irrigation—North Yakima, Wash.—It is reported that Supervising Engineer Swigart, of the U. S. Reclamation Service at North Yakima, has been authorized to spend $987,795 in the Washington Division during the remainder of the fiscal year ending June 30. This sum will be divided as follows: Okanogan, $76,940, and storage works, $330,560; Sunnyside, $497,980; Tieton, $82,495.

Water Way — Tacoma, Wash. — The Hylebos waterway project has been held up for a time by a friendly suit to establish right of comrs. to do certain work. All surveys have been completed and lines of waterway definitely decided upon and work of construction will proceed as soon as these legal matters are settled. W. C. Raleigh, City Engr.

Sea Wall—Seattle, Wash.—Plans have been approved for construction of a concrete sea wall along Railroad Ave.; cost about $150,000.

Pier—Redondo Beach, Cal. — Citizens voted Mar. 11 to issue $121,000 bonds for a municipal pleasure pier.

Irrigation—Sacramento, Cal.—Engineer Powers, representing San Francisco and Eastern capitalists, is reported to be in Sacramento making preliminary arrangements for organization of an irrigation district to water 60,000 acres of land in Sacramento and Amador Counties; this land extends from Galt to Ione. Engineer Powers will apply to State Eng. Dept. for a permit to form the irrigation district; work will include a dam across Cosumnes River, near Volcano, in Amador County.

Drainage—Greenfield, Ont.—Bids desired until Apr. 10 by J. D. Cameron, Township Clk. of Kenyon, at Greenfield, for constructing River Beaudette drain, requiring approximately 56,152 cu. yd. excav., 9735 cu. yd. hard-pan, 228 cu. yd. reinforced concrete, 417 cu. yd. grading Culvert "C," Bridges "A" and "B," 457 cu. yd. excavation Culvert "C," Bridges "A" and "B," about 20,450 lb. twisted steel reinforcing bars. Magdood & Stillwell, Engrs., Cornwall.

ELECTRIC RAILWAYS.

Items Arranged Geographically

Brooklyn, N. Y.—The Public Service Comn. for the 1st Dist., 154 Nassau St., New York, desires bids Apr. 20 for construction of Sect. 2 of Route 12, Eastern Parkway subway in Brooklyn, to be operated by Interborough Rapid Transit Co. The Eastern Parkway subway is an extension of existing subway, and runs from its terminus at Atlantic and Flatbush Aves., Brooklyn, out Flatbush Ave. to Eastern Parkway and out Eastern Parkway to Buffalo Ave. as a 4-track line, with a 3-track elevated extension from that point out to E. 98th St. and Livonia Ave. to New Lots Ave., and 2-track subway branch down Nostrand Ave. to Flatbush Ave. It is already under construction in Flatbush Ave. west of Prospect Plaza. Sect. 2 covers that portion of line extending from Prospect Park Plaza under Eastern Parkway to a point east of Nostrand Ave. The subway will be built on double-deck plan, devised for purpose of saving the trees in Eastern Parkway.

New York, N. Y.—The Public Service Comn. for 1st Dist. has approved form of contract submitted by Interborough Rapid Transit Co. for construction of a portion of the West Farms subway connection. This section, which is authorized by Dual System contracts, leaves 3d Ave. elevated road at about 134 ft. north of center line of E. 143d St. and runs through Willis and Bergen Aves. to a point near 149th St., and thence to a connection with Lenox Ave. branch of existing subway. It is authorized under certificate conveying rights for elevated railroad extensions, and as such is to be built by company at its own expense.

Petersburg, Va.—Petersburg & Appomattox Ry. Co. has been chartered to construct 5-mile electric railway from Petersburg to City Point. Capital $100,000. Among incorporators are T. M. Wortham and W. W. Alexander.

Jeanerette, La.—Plans are being made by Southwestern Traction & Power Co. (W. S. Henning, Ch. Engr., New Iberia) to build electric railway from Jeanerette to Martinville.

Elkhart, Ind.—H. E. Bucklen, Elkhart, contemplates constructing electric railway between Indiana-Ohio State Line and to Toledo.

Peoria, Ill.—Illinois Traction Co. contemplates constructing 1½-mile line near Martin and an extension to Wapella.

Oklahoma City, Okla.—Plans are being made by Oklahoma & Interstate Ry. Co to award contracts and begin work soon on 130-mile electric railway to connect Columbus, Galena, Baxter Springs. John E. Rose, Oklahoma City, Pres., and W. K. Palmer, Kansas City, Kan., Ch. Engr.

★**Clarkston, Wash.**—Contract for constructing electric railway through Lewiston-Clarkston Valley has been awarded to Edw. McGarry, Lewiston.

Three Rivers, Que.—Three Rivers Traction Co. received franchise from Council. This is part of plan to build 30-mile railway.

Toronto, Ont.—Bids desired until Mar. 30 by T. L. Church (Mayor), Chmn. Bd. Control, for following for Toronto Civic Ry.: "Tender 39," sweeper body and equipment for St. Clair Ave. Div.; "40," equipment for machine shop, Danforth Ave. car barn; "41," mechanical and electrical equipment for car bodies Lansdowne Ave. extension; "42," 4 car bodies for Lansdowne Ave. extension, advertised in Engineering Record.

RAILROADS.

Items Arranged Geographically

Elizabeth, N. J.—Press reports state that the Central R. R. of New Jersey (J. O. Osgood, Ch. Engr., New York) is considering elimination of 24 grade crossings in Elizabeth.

Lynchburg, Va.—It is reported that the Norfolk & Western R.R. Co. (J. E. Crawford, Ch. Engr., Roanoke) will award contract for 40 miles of new work between Lynchburg and Richmond.

★**Shelby, N. C.** — Contract reported awarded by County Comrs. to S. S. Royster and O. Flam, of Shelby, to construct a steam railroad from Shelby to Casar, about 21 miles in length.

Atlanta, Ga.—It is reported that the Ocilla R.R. Co. (J. A. J. Henderson, Pres., Ocilla) will build from Atlanta to Jacksonville.

Chicago, Ill.—We are informed the following railroad work is contemplated in the city of Chicago during this year:

Chicago, Milwaukee & St. Paul Ry., Evanston Division, from Montrose Ave. to Howard Ave., 1.5 miles of roadbed and 3.5 miles of tracks to be elevated. (C. F. Loweth, Ch. Engr., Chicago.)

Chicago, Milwaukee & St. Paul Ry., Bloomingdale Rd., from Ashland Ave. to Lawndale Ave., for final completion.

Chicago, Rock Island & Pacific Ry., main line, from 76th St. to 90th St., and from 87th St. to So. Carpenter St., and South Chicago Line, from 87th St. to So. State St., 1.81 miles of roadbed and 7.09 miles of tracks to be elevated. (C. A. Morse, Ch. Engr., Chicago.)

Chicago & Western Indiana R.R., main line, from 71st St. to State St., 86th St. to Stewart Ave. and C. R. I. & P. crossing, 1.5 miles of roadbed and 8 miles of tracks to be elevated. (E. H. Lee, Ch. Engr., Chicago.)

Pittsburgh, Cincinnati, Chicago & St. Louis Ry., from Leavitt St. and 39th St. to 69th St., 3.8 miles of roadbed and 51.47 miles of tracks to be elevated. (F. M. Graham, Div. Engr., Chicago.)

Baltimore & Ohio Chicago Terminal R.R., from Leavitt St and 39th St. to 69th St., 3.8 miles of roadbed and 7.6 miles of tracks to be elevated. (H. A. Field, Asst. Engr., Chicago.)

Chicago & Western Indiana R.R., along 75th St. from W. 74th St. to Wood St., for final completion.

Illinois Central R.R., main line, from 100th St. to Kensington Ave., 2 miles of roadbed and 8 miles of tracks to be elevated. (A. S. Baldwin, Ch. Engr., Chicago.)

Kensington & Eastern R.R., from E. 111th St. to Kensington Ave., .5 mile of roadbed and 1 mile of tracks to be elevated.

Michigan Central R.R., from E. 113th St. to Kensington Ave., .25 mile of roadbed and .25 mile of tracks to be elevated. (G. H. Webb, Ch. Engr., Detroit, Mich.)

The city of Chicago takes no part in letting contracts or constructing the above work; it merely passes ordinances requiring railway companies to elevate their roadbed and tracks. and Comr. of Pub. Wks. has supervision of inspection of work while in progress. (John Ericson, City Engr.)

Toston, Mont.—It is reported the Keating Gold Mining Co. of Toston, or a subsidiary, will build a railroad from Toston to Radersburg, a distance of 14 miles

PUBLIC BUILDINGS AND SCHOOLS.

Items Arranged Geographically

Salem, Mass.—School Bd. has asked Council to erect an addition to Bowditch School.

Newport, R. I.—Bids desired until Apr. 10 at Bureau Yards and Docks, Navy Dept., Washington, D. C., for Spec. 2148—Roofing, sheet metal work, iron work, plumbing, heating, lighting, painting and wood block pavements for buildings at Naval Torpedo Station, Newport.

Providence, R. I.—Bids desired until Apr. 5 by Bd. Contract and Supply (Jos. H. Gainer, Mayor, Chmn.) for erecting a school on Laurel Hill, including heating, ventilating, plumbing and lighting. Clark & Howe, Archts., 1304 Turks Head Bldg.

★**Bristol, Conn.**—Following are four lowest bids opened Mar. 15 by Bldg. Com. Bd. Educ. for erecting the Federal Hill School: Wise & Upson, Hartford, $62,835 (awarded contract); B. H. Hibbard, $68,917; J. H. Crosier Co., $69,106, and Torrington Bldg. Co., $69,917.

Danbury, Conn.—Lowest bid for erecting the U. S. Post Office submitted by Geo. B. Wills, New York, at $70,000.

★*Items marked thus give the names of parties awarded contracts.*

Hartford, Conn.—Reported new bids desired Mar. 30 by Bd. Contract for steel work for the new high school.

Bids desired until Mar. 30 (readvertisement) by Bd. Contract and Supply (Jos. Buths, Secy.), for furnishing equipment and interior finishing work at Hartford Municipal Building. Davis & Brooks, Archts., 49 Pearl St.

Bath, N. Y.—Bids desired until Apr. 12 by Jos. A. Goulden, Pres. Bd. Mgrs., N. Y. State Soldiers & Sailors Home, Bath, for erecting a barn and vegetable cellar at said home, advertised in Engineering Record. Lewis F. Pilcher, State Archt., Albany.

Buffalo, N. Y.—Bids desired until Mar. 30 by Armory Comn., 174 State St., Albany, for repairs and improvements to the 74th Regt. Armory at Buffalo, including masonry, carpentry and plumbing work.

The Mayor on Mar. 19 approved issue of bonds as follows: For remodeling Broadway market, $118,000; completion of school buildings, $420,000; new police stations, Nos. 2 and 8, $80,000.

Dannemora, N. Y.—Bids desired until Apr. 1 by Dr. Chas. H. North, Medical Supt., Dannemora State Hospital, Dannemora, for iron stairs and enclosures for the Southwest Wing, State Hospital for Insane Criminals, Dannemora.

Industry, N. Y.—Bids desired until Apr. 13 by Mrs. Warham Whitney, Pres. Bd. Mgrs. State Agricultural and Industrial School, Industry, N. Y., for alterations and additions to hospital buildings, including construction, heating, plumbing, etc., advertised in Engineering Record. Lewis F. Pilcher, State Archt., Albany.

Kings Park, N. Y.—Following are four lowest bids opened Mar. 18 by State Hospital Comn., Albany, for erecting additional accommodations for chronic patients at Kings Park State Hospital, Kings Park, N. Y.: Maurice Mead, Albany, $72,000 and $24,480; Edwin Outwater, Inc., New York, $78,510 and $26,826; R. T. Ford Co., Rochester, $83,500 and $27,000; Simon Russel, Inc., 261 Bway., New York, $87,400 and $29,800. Lowest bid for heating said buildings was submitted by W. B. Armstrong Co., Albany, at $5,531 and $1,900 and for plumbing and drainage by Arthur S. Gaynor Co., 168 W. 99th St., New York, at $7,381 and $2,065. Lewis F. Pilcher, State Archt., Albany.

Little Falls, N. Y.—Bids desired until Apr. 6 by Matthew A. Leahy, City Clk., for $75,000 City Hall bonds.

Newark, N. Y.—Following are four lowest bids opened Mar. 4 by Bd. Mgrs., N. Y. State Custodial Asylum for Feeble Minded Women at Newarw, for erecting buildings: Lewis F. Pilcher, State Archt., Albany.

92 cottages—O. E. Schuman, Newark, $43,516; Curran & Swartout, Rochester, $45,000; A. Friedrich Sons Co., Rochester, $45,798; Austin W. Summers, Buffalo, $46,270.

Constructing Asylum—Austin W. Summers, Buffalo, $40,498; R. T. Ford Co., Rochester, $42,596; A. Friederich Sons Co., Rochester, $43,299, and W. F. Felton, Buffalo, $44,160.

New Hartford, N. Y.—Bids desired until Mar. 29 by Bd. Educ., Union Free School Dist., No. 1, Town of New Hartford (Geo. W. Lasher, Chmn., Hillsdale Ave., New Hartford), for erecting a school. Gouge & Ames, Archts., 70 Genesee St., Utica.

New York, N. Y.—Municipal Art. Comn. has approved plans for a 16-story women's jail, court and detention building to be erected at W. 30th St. near 7th Ave., for Dept. of Correction; cost $450,000. Griffin & Wynkoop, Archts., 3 S. William St.

New York, N. Y.—See "Water Works."

Rosebank, S. I., N. Y.—Bids desired until Mar. 31 (readvertisement) by Dr. Jos. J. O'Connell, Health Officer, Port of New York, Quarantine Station, Staten Island, N. Y., for construction, plumbing, heating, drainage, gas piping and electric work for animal building for Port of New York at Quarantine Station, Rosebank, Staten Island. L. F. Pilcher, State Archt., Capitol, Albany.

Utica, N. Y.—Clerk of School Bd. is reported to have been authorized to receive bids for erecting a 26-room school on Warren St. Gouge & Ames, Archts., Utica.

Following are four lowest bids opened Mar. 15 by School Bd. for erecting the addition to Utica Free Academy, (a) gymnasium, (b) main building: A. E. Stephens Co., New York, (a) $55,545, (b) $333,400; Oscawanna Bldg. Co., New York, (a) $61,000; Wm. F. Felton, Buffalo, (a) $57,978, (b) $329,477; Emerson Bldg. Co., New York (b) $315,200; Thos. F. Byrnes, Utica, (b) $319,275; Pius Kerner & Son, (a) $58,800.

Edw. J. Berg, Utica, Archt., writes bids desired about June 1 for erecting St. Elizabeth hospital at 761 Genesee St., to cost $225,000. Two buildings will be erected, a hospital and laundry, both to be fireproof. T. B. Barnett Co., St. Louis, Mo., Assoc. Archts.

Gloucester, N. J.—Bids desired until Apr. 20 by O. Wenderoth, Superv. Archt., Washington, D. C., for construction, complete (including mechanical equipment) of the receiving building for the Philadelphia, Pa., Immigration Station (Gloucester, N. J.), advertised in Engineering Record.

★**Morristown, N. J.**—Bd. Directors of Morristown Memorial Hospital has approved the letting of the contract to erect the addition to the hospital to Sturgis Bros., Morristown; cost $65,000.

★**Nutley, N. J.**—Contract for erecting the 2-story brick and stone school on Harrison St. reported awarded to E. M. Waldron & Co., 84 S. 6th St., Newark, at about $40,000. Chas. Granville Jones, Archt., 280 Bway., New York.

Skillman, N. J.—Plans completed by Geo. S. Drew, State Archt., Trenton, for cottages, 2 story and basement, to be erected at State Home for Epileptics, at a cost of $75,000.

★**Trenton, N. J.**—Contract for erecting 3-story brick addition to State Hospital for Insane awarded to Metzger & Fisher, Philadelphia, Pa., at about $50,000. Geo. S. Drew, State Archt., Trenton.

Bath, Pa.—Plans of A. W. Leh, of South Bethlehem, selected for 2-story brick high school to cost $25,000.

★**Beaver, Pa.**—Contract for erecting the county home, awarded to Ley Constr. Co., Pittsburgh, for the general construction at $96,890; Weldon & Kelly Co., Pittsburgh, for plumbing at $10,800, and G. F. Higgins Co., Pittsburgh, for heating at $8,873.

Holmesburg, Pa.—Bids desired until Mar. 31 by Bd. Inspectors Philadelphia County Prison, 10th and Reed Sts., Philadelphia, for erecting a ward building and store house, also alterations and additions to boiler room and laundry building, mechanical system, boilers, steam piping, engines and generators, electric wiring and plumbing, ventilating and heating for the Philadelphia County Prison at Holmesburg. Philip H. Johnson, Engr. and Archt., Land Title Bldg., Philadelphia.

Irwin, Pa.—W. G. Eckles, New Castle, engaged to prepare plans for the high school to be erected jointly by Irwin and the North Huntington Township. Cost $100,000.

Johnsonburg, Pa.—Bids desired until Apr. 5 by Bd. Educ. (W. E. Heckendorn, Secy.), for erecting a high school on 1st Ave. and Spruce Sts., Johnsonburg; also separately for ventilating, heating, plumbing and electric wiring. Clyde S. Adams, Archt., 1509 Arch St., Philadelphia.

Jonestown, Pa.—Committee appointed by Council to look into the cost of erecting a borough hall.

Lebanon, Pa.—Plans being prepared by Bissell, Sinkler & Gilden, Philadelphia, for a 2-story annex to be erected to the Good Samaritan Hospital; cost $75,000.

Mahoningtown, Pa.—H. M. Wirsing, New Castle, is preparing plans for the new school and addition which it is proposed erecting here.

Myerstown, Pa.—Plans being prepared by A. A. Richter, 33 N. 6th St., Reading, for an administration building for Albright College, to be 2-story stone and fireproof.

New Castle, Pa.—Reported bids desired by Bd. Educ. for erecting 2-story brick 76 x 68 ft. school, to cost $25,000. W. D. Hill, Archt., Pottsville.

Philadelphia, Pa.—Plans being prepared for a 3-story addition to Lansdale Hospital, costing $30,000.

Permit issued to W. W. Anstine & Co., 1218 Filbert St., for a 1-story concrete, stone and granite, slate roof, 71 x 117 ft. power house to be erected at Home for Indigent on State Road and Rhawn St., for the Dept. of Health & Charities; cost $56,535.

Pittsburgh, Pa.—Bd. Educ. adopted plans for the Homewood High School.

Pottsville, Pa.—Lowest bid received by Bd. Educ. for erecting 3 story and basement brick and stone high school, 65 x 122 ft., submitted by Walter Wertley & Son, Pottsville, at $44,250. Francis X. Reilly, Archt., Pottsville.

Tarentum, Pa.—S. M. Kennedy, Secy. Bd. Educ., writes that Press C. Dowler, Arrott Bldg., Pittsburgh, has been engaged to prepare plans for the proposed $100,000 school for Tarentum School District.

Swissvale, Pa.—Bd. Trade taking steps to erect a $25,000 library.

Wilmington, Del.—Bids desired until Apr. 7 by Maj. E. N. Johnston, Corps Engrs., U. S. A., Wilmington, for erecting a warehouse at Wilmington, advertised in Engineering Record.

Brookland, D. C.—Plans being prepared for a 3-story dormitory to be erected at Trinity College; cost $40,000.

Washington, D. C.—Plans being prepared by S. Ashford, Municipal Archt., for 8-room addition to Powell School on School St.; appropriation $66,000. Also for the truckhouse to be erected on New Jersey Ave., near E. St. N. W.; cost $40,000.

Warwood, W. Va.—School Bd. of Richland Dist. has plans by Fred F. Faris, Wheeling, for the Central Warwood School, to be fireproof, brick, 10 rooms, gymnasium and auditorium; cost $40,000.

Thomaston, Ga.—Co. Comrs. propose erecting new jail.

Jacksonville, Fla.—Bids desired until Apr. 19 by County Commissioners (E. A. Ricker, Chmn.), for furnishing material and erecting an armory; also separately for plumbing and heating and electric wiring. Talley & Summer Co., Archts., St. James Bldg., Jacksonville.

Citizens, March 16, voted to issue $1,000,000 school improvement bonds.

Alliance, O.—Reported bids desired until Apr. 20 by Comrs. of Stark and Columbiana Counties, at the Lexington Hotel, Alliance for erecting the school at the Fairmount Children's Home. A. L. Thayer of New Castle, Pa., Archts.

Canton, O.—Plans being prepared by C. C. & A. L. Thayer, New Castle, Pa., and will be ready in May, for a school to be erected in Canton, to cost $75,000.

Chillicothe, O.—Bids desired until Apr. 15 by B. E. Stevenson, Clk. Bd. Educ., for erecting a school; also separately for ventilating and heating.

★**Cincinnati, O.**—Contract for erecting the court house, bids opened Feb. 16, was awarded March 16 to Chas. McCaul Co., Philadelphia, Pa. Rankin, Kellogg & Crane, Philadelphia, Pa., Archts.

Dayton, O.—Bd. Educ. reported to be considering the erection of a school on either Ohmer Park or North Riverdale site, and the installation of a gymnasium and swimming pool in Steele High School.

Bids desired until Apr. 14 by County Comrs. (W. H. Aszling, Clk.) for furnishing material and erecting a men's dormitory building at the County Infirmary. Schenck & Williams, Archts., Arcade Bldg.

Lakewood, O.—Bids desired until Apr. 15 by P. T. Harrold, Clk. Bd. Educ., for furnishing material and erecting 2 4-room additions to the Madison School. Madison Ave. opposite Wagar Ave. Bids desired as a whole or separately for the following: Masonry, etc.; carpentry, etc.; iron and steel; fireproofing; sheet metal work and roofing; plumbing; heating; electric wiring and electric fixtures, etc. Separate bids desired for labor and material. Chas. W. Hopkinson, Archt., 900 Rose Bldg., Cleveland.

Lancaster, O.—Reported bids desired for erecting the hospital to cost $50,000, plans for which have been prepared by Wilbur T. Mills, Columbus.

Lowell, O.—Bids desired until Apr. 14 by Village Council (J. C. Wilking, Clk.), for furnishing material and erecting a municipal building.

Toledo, O.—Bids desired until Apr. 19 by Bd. Educ., City School Dist., for furnishing material and erecting Nebraska School, Nebraska Ave. Edwin M. Gee, Archt., Bd. Educ.

Troy, O.—Elizabeth Township has sold $25,000 school bonds.

★**West Austintown, O.** — Contracts awarded by Bd. Educ., Austintown Township, R. F. D. No. 1, Mar. 17, for erecting a 10-room centralized school with auditorium and gymnasium of composite construction, as follows: For mason and carpenter work, Niles Supply & Constr. Co., Niles, O.; heating, to American Heating & Ventilating Co., Cleveland; plumbing, Schall & Semple. Total cost about $45,000. Miller & Ford, Archts., Dollar Bank Bldg., Youngstown.

Lagro, Ind.—Reported bids desired Apr. 3 by Morris J. Ragan, Trus. Lagro Township, Wabash County, for erecting a 2-story high school to replace high school destroyed by fire. E. E. Dunlap, Archt., Kokomo.

Warsaw, Ind.—W. F. Marsh, Secy. Bd. of Educ., writes architect will probably be engaged in April for proposed school; cost reported to be $60,000.

Detroit, Mich.—Council Com. of the House of Correction Fund has approved the estimate of $1,000,000 for a new workhouse and $150,000 for a site for the plant.

Springfield, Ill.—Bd. Educ. intends remodeling the high school at a cost of $300,000.

Allouez (P. O. Superior), Wis.—Plans to be prepared for a 2-story addition to Franklin School, to cost $50,000. Address School Bd.

Duluth, Minn.—Bids desired until 1 P. M. Mar. 29 by Chas. A. Bronson, Clk. Bd. of Educ., for erecting the Lincoln Junior high school from plans of F. G. German, Exchange Bldg.

★**Minneapolis, Minn.**—Contracts have been awarded for erecting biology building at University of Minnesota, as follows: General construction, to Hodgin Constr. Co., $131,870; heating and plumbing, to Healy Plumbing & Heating Co., $27,286; electric wiring to Minneapolis Electric Equipment Co., $15,900; elevator, Lee & Haft Mfg. Co., $2,788.

★**Atchison, Kan.**—Contracts awarded by Bd. of Education, Mar. 8, for erecting school as follows: General construction, Julius Kaaz Mfg. Co., Atchison, $34,895; plumbing to Holbrook & Marlin, Atchison, $4,210. Sayler & Seddon, Archts., Gumble Bldg., Kansas City, Mo.

Omaha, Neb.—Bids reported desired until Apr. 15 for erecting a hospital at 25th and Douglas Aves., 4-story, 65 x 105 ft., common and pressed brick. Probable cost, $60,000. Jas. Allan, Archt., Brandels Theater Bldg.

Havre, Mont.—Bids reported desired until Apr. 10 by County Commissioners for erecting a courthouse.

Douglas, Wyo.—Bids desired by J. C. Arnspoker, Co. Clk., until Apr. 20, for erecting 3-story brick court house, 60 x 60 ft., to cost $40,000. W. Bowman, Archt., Central Savings Bank, Denver, Colo.

Cleburne, Tex.—Citizens voted $130,000 bonds to erect ward school buildings.

Galveston, Tex.—Reported bids desired Apr. 1 by Bd. Educ. for erecting the addition to the Ball High School to provide 12 class rooms. A. J. Bellis, Archt., Galveston.

Denton, Tex.—Plans being prepared by Sanquinet & Staats, Ft. Worth, for proposed school for which citizens recently voted $110,000 bonds.

Ardmore, Okla.—Bids desired until Apr. 28 by O. Wenderoth, Superv. Archt., Washington, D. C., for construction, complete (including mechanical equipment, lighting fixtures and aproaches) for U. S. Post Office and Courthouse, Ardmore.

Davenport, Wash.—Citizens voted to issue $40,000 bonds to erect a school.

Spokane, Wash.—Plans being prepared for a 2-story reinforced concrete gymnasium to be erected on the campus of the Whitworth College.

Folsom City, Cal.—Reported bids desired by Advisory Bd. of the State Engineering Dept., Sacramento, for erecting one-half of the cell house at the Folsom City Prison, estimated to cost $54,650. About 265 cells will be included in this half, to be of reinforced concrete construction.

★**San Francisco, Cal.**—Contract awarded by State Harbor Comrs. for erecting the post office on Embarcadero, foot of Mission St., to Teichart & Ambrose, at $74,189. Building is to be 2-story concrete.

Monticello, Utah.—Plans completed by Watkins & Birtch, Salt Lake City, for school containing 11 class rooms, library, gymnasium and auditorium; cost $30,000.

Moncton, N. B.—Bids desired about May 1 by Bd. Educ. for rebuilding Aberdeen school; it will be of brick and stone, 2½ stories high, 80 x 130 ft., and cost $90,000. F. Neil Brodie, Archt., St. John.

Niagara Falls, Ont.—Trus. of 5th School Sect. in Stamford Township have engaged an architect to prepare plans for a school.

PRIVATE BUILDINGS.

Items Arranged Geographically

Boston, Mass.—Pureoxia Co. is to erect a 2-story and basement concrete garage costing $50,000 on Norway St.

Worcester, Mass.—Plans being prepared by Onesime E. Nault, 8 Wall St., for a 12 class room and assembly hall 3 story brick parochial school, to be erected for Notre Dame Parish.

Plans have been completed by Onesime E. Nault, 8 Wall St., for the brick church for Holy Family Parish, Greylock, Rev. J. A. Simard, pastor.

Plans completed by Hachadoor S. Demoorjian, State Mutual Bldg., for a 3 story stucco store and apartment house to be erected on Highland St. and Park Ave., for Edmund E. Mallett, to cost $25,000.

★**Brooklyn, N. Y.**—Contract for erecting St. Thomas Episcopal Church, at Bushwick Ave. and Moffatt St., awarded to Chas. Ward Hall, 140 Nassau St., New York. Cost, $40,000. Hopkins & McEntee, Archts., 37 E. 28th St., New York.

★Contract for erecting 6th Ave. M. E. Church, brick and limestone, awarded to Chris. Schneider & Son, 1251 DeKalb Ave.; cost about $35,000. Floyd Y. Parsons, Archt., 1133 Bway., New York.

★General contract to erect a 3-story factory on Flatlands, near Bergen Beach, for Atlantic White Lead & Linseed Oil Wks., awarded to Wm. Kennedy Constr. Co., 215 Montague St., at about $80,000.

Plans filed for 2-story brick ice plant to be erected at Classon and Atlantic Aves. for Central Hygeia Ice Co., at cost of $65,000. Koch & Wagner, Archts., 26 Court St.; a 2-story brick dwelling and office building at Jamaica Ave. and Kills Path, cost $50,000, for Temple Emanuel, 43d St. and 5th Ave., New York, Percy W. Darbyshire, Archt., 475 5th Ave., New York; 4-story brick tenement at Albemarle Road and Ocean Ave. for Wolfinger & Lasberg, cost $80,000; W. T. McCarthy, 16 Court St., Archt.

Flushing, L. I., N. Y.—Plans being prepared by H. T. Jeffrey & Sons, 923 Lefferts Ave., Richmond Hill, for a 4-story apartment house to be erected at Union and Sanford Aves. for Robt. E. Adolph, 80 Herriman Ave., Jamaica; cost, $100,000.

Jamaica, L. I., N. Y.—Plans being prepared by H. T. Jeffrey & Son, 923 Lefferts Ave., Richmond Hill, and bids will soon be asked by him for a 3-story semi-fireproof brick and limestone hotel to be erected at Herriman and Shelton Aves. by Robt. E. Adolph, 80 Herriman Ave. Cost, complete, $125,000.

★*Items marked thus give the names of parties awarded contracts.*

Long Island City, L. I., N. Y.—Plans prepared by Edw. Hahn, Bridge Plaza, for a 1-story brick theater to be erected at Steinway and Jamaica Aves. for Reliable Bldg. Co., 1404 2nd Ave., New York. Cost, $50,000.

★**Long Island City, N. Y.**—Contract awarded to Turner Constr. Co., 11 Bway., New York, for erecting a 3-story reinforced concrete fireproof empty barrel storage building at Duryea St. and Newtown Creek for Standard Oil Co.; cost, $125,000.

★**New York, N. Y.**—Contract reported awarded to Marc Eidlitz & Son, 30 E. 42d St., for an office building to be erected at Bway. & Vesey St. for the Astor Estate, 23 W. 26th St. Chas. A. Platt, Archt., 11 E. 24th St.

★Contract for erecting 4-story brick and terra cotta fireproof pavilion at Montefiore Home, on Gun Hill Road, awarded to Hedden Constr. Co., 1 Madison Ave. Cost, $200,000.

★Contract awarded to McDermott & Hanigan, 103 Park Ave., for erecting a 9-story warehouse and a 2-story garage, fireproof construction, at 112 to 122 W. 107th St., for Chelsea Storage Warehouse Co. Cost, $100,000. Wortmann & Braun, Archts., 114 E. 28th St.

★General contract to erect 5-story limestone, brick and granite fireproof residence at 7-9 E. 61st St. for John T. Pratt awarded to Jas. McWalters & Son, Inc., 1493 Bway. Chas. A. Platt, Archt., 11 E. 24th St.

Plans filed by H. Craig Severance and Wm. Van Allen, 4 W. 37th St., for a 1-story addition to the 16-story office building of the Standard Oil Co. at 26 Bway. Cost, $100,000.

A. Hamilton & Son, 2490 Tiebout Ave., intends erecting a 5-story apartment house at Creston Ave. and Field Pl., to cost $55,000.

Plans being prepared for following buildings: Three 5-story apartment houses at Haven Ave. and 178th St. for Nevah Constr. Co., cost $65,000 each; Goldner & Goldberg, Archts., 391 E. 149th St.; 12-story apartment house at 321 West End Ave. for Charmion Constr. Co., cost $500,000, Neville & Bagge, Archts., 105 W. 40th St.; 6-story brick apartment house at Riverside Drive and 161st St. for Melvin Constr. Co., cost $600,000, Young & Wagner, Archts., 1204 Bway; three 5-story apartment houses at Seaman Ave. and Emerson St. for Smada Realty Co., total cost $165,000, Tremont Architectural Co., Archts., 401 E. Tremont Ave.; 5-story apartment house at St. Nicholas Ave. and 192d St. for Epros Realty Co., cost $60,000, Sommerfeld & Steckler, Archts., 31 Union Sq.; apartment house at Bway. and 215th St. for Haven Constr. Co., cost $150,000, Geo. F. Pelham, Archt., 30 E. 42d St.

Plans filed for the following buildings: 9-story fireproof apartment house to be erected at 145 E. 49th St. for Antler Realty Co., cost $200,000, Geo. & Edw. Blum, Archts., 505 5th Ave.; 5-story brick non-fireproof apartment house at 677 W. 204th St. for 204th St. Corporation, cost $55,000, Wm. Koppe, Archt., 830 Westchester Ave.; 6-story brick tenement at 154th St. and Courtlandt Ave. for Cedar Constr. Co., cost $55,000, Tremont Architectural Co., Archts., 401 Tremont Ave.; two 5-story brick tenements at Longfellow Ave. and 174th St. for Trask Bldg. Co., cost $85,000, Tremont Architectural Co., Archts., 401 Tremont Ave.; 5-story brick tenement at Kelly and 163d Sts. for Mott Ave. Realty Co., cost $95,000, Goldner & Goldberg, Archts., 391 E. 149th St.; two 5-story brick tenements at Ryer Ave. and 182d St. for Alexander Wilson, cost $70,000, Tremont Architectural Co., Archts., 401 Tremont Ave.; 5-story brick tenement at Creston Ave. and 182d St. for Jas. C. Gaffney, cost $60,000, Edw. J. Clark, Archt., 110 E. 121st St.; 5-story brick tenement at Bathgate Ave. and 183d St. for Benenson Realty Co., cost $55,000, Tremont Architectural Co., Arcnts., 401 Tremont Ave.; 2-story brick theater, store and office building at Webster Ave. and Fordham Road for Wedgewood Co., cost $200,000, And. J. Thomas, Archt., 2526 Webster Ave.; 1-story brick market at 149th St. and Courtlandt Ave. for People's 149th St. Market, Inc., cost $25,000, Heidelberg & Levy, Archts., 12 W. 31st St.

★**Rye, N. Y.**—Contract reported awarded to F. N. Goble, 1 E. 42d St., New York, for erecting the 2-story rubble stone residence at Kirby Lane for Waldron Williams, New York. Cost, $65,000. Donn Barber, Archt., 101 Park Ave., New York.

Schenectady N. Y.—Reported competitive plans soon to be asked by the Masons for a temple costing $150,000.

Beverly, N. J.—H. Brown, Burlington, reported to have prepared plans for a 3 story brick 65 x 85 ft. hall building, to be erected by the Masons; cost $28,000.

Paterson, N. J.—Kearney Council No. 261, Junior Order of United American Mechanics, proposes erecting a clubhouse costing $35,000.

Abington, Pa.—Plans about completed by Mantle Fielding, 518 Walnut St., Philadelphia, for a 2-story brick and terra cotta Y. M. C. A. building.

Coraopolis, Pa.—Plans being prepared by Thos. Hannah, Pittsburgh, for Presbyterian Church; cost, $50,000.

★**Doylestown, Pa.**—Contract awarded to R. T. & C. D. Stewart Contr. Co., by Wm. Laubach & Sons, Inc., for erecting a 7-story and basement building.

★**Easton, Pa.**—Contract for erecting St. Luke's Lutheran Church awarded to Howard D. Folkenson, Easton, at $37,000.

Jos. M. Hitzel, Prop. Franklin House, reported to be taking steps to replace same with a 5-story hotel.

★**Erie, Pa.**—Contract for erecting St. Andrew R. C. Church awarded to Kirschner Bros., Erie, at $86,000.

Freeport, Pa.—Bids desired until Apr. 9 by Odd Fellows' Bldg. Assoc. (R. H. McGraw, Secy.) for erecting an Odd Fellows building, 5th and Cherry Alley.

Knoxville, Pa.—A $25,000 addition is to be erected to the Presbyterian Church. Geo. H. Schwan, Archt., Pittsburgh.

Philadelphia, Pa.—Plans being prepared by Wm. Steele & Sons Co., 1600 Arch St., for 5 story reinforced concrete and brick 30 x 150 ft. warehouse, to be erected at 917 Arch St., for Asam Bros.

★**Scranton, Pa.**—Contract for erecting the building for the Y. M. Hebrew Assoc. reported awarded to E. A. Fuller, 1616 Dickson Ave., at about $40,000.

Sunbury, Pa.—St. Johns Methodist Church intends erecting a $35,000 edifice.

Wilkinsburg, Pa.—Lowest bid received for erecting the 1 story and balcony stone veneered church for the Calvary Lutheran Congregation on South Ave. submitted by E. Z. Peffer, Wilkinsburg. Cost about $40,000.

★**Baltimore, Md.**—Reported contract for erecting apartment house at St. Paul and 26th Sts. awarded by Normandie Apartments Co. to West Constr. Co., Knickerbocker Bldg.; cost $75,000. Otto G. Simonson, Archt., Maryland Casualty Tower.

Jos. Evans Sperry, Baltimore, engaged to prepare plans for the Y. W. C. A. building.

Washington, D. C.—Plans prepared by Frank G. Pierson, 902 F St. N. W., for a convention hall which the Washington Convention Hall Co. intends erecting on the site of the old census office building, and to cost $250,000.

★Contract reported awarded to Fuller Constr. Co., Washington, for erecting an 11-story building at 1335 E St.

Morgantown, W. Va.—Masons propose erecting a temple costing $30,000.

Florence, S. C.—Plans prepared by D. C. Barnot, Charleston, for the Roman Catholic Church, to cost $30,000.

Augusta, Ga.—Pilgrim Life Insurance Co, it is reported, is about to let contract for erecting a 3 story office building, costing $30,000.

Macon, Ga.—General plans for the new union passenger station have been approved by the Georgia R. R. Comn. The Macon Terminal Co. must submit to the Comn. by Sept. 1 complete specifications for the station.

The Shriners propose erecting a $50,000 temple.

Savannah, Ga.—Plans for 5-story bank building for the American Bank & Trust Co. are to be prepared by Alfred C. Bossom, of New York, and Edw. W. Young, of Savannah.

★Contract for the 3500 tons of structural steel required for the terminal to be erected here by the Ocean Steamship Co. reported awarded to Virginia Bridge & Iron Co., Roanoke, Va.

J. B. Pound, of Chattanooga, Tenn., proprietor of Hotel Savannah, is reported to be considering the erection of a 10-story addition.

Tampa, Fla.—H. C. Dorsey is Pres. and H. S. Hazlett, of Birmingham, Ala., Secy. of a company which intends erecting a theater here costing $60,000.

Lynn, Mass.—Valladolid Council, Knights of Columbus, reported to be considering erecting a $100,000 building.

Mt. Sterling, Ky.—Plans being prepared for a Baptist Church costing $40,000.

★**Cleveland, O.**—Contract for placing concrete piling for foundation of Union Natl. Bank Bldg. awarded to Raymond Concrete Pile Co., 140 Cedar St., New York. Crowell, Lundoff-Little Co., General Contractors, Cleveland; Walker & Weeks, Archts., 1900 Euclid Ave.

Reported plans being prepared for 6-story warehouse which Fisher Bros., 1303 W. 9th St., will erect at Lakeside Ave. and E. 22d St., to cost $150,000.

Delaware, O.—Plans for 3 or 4 story brick and concrete 60 x 100 ft. warehouse to be erected for the V. T. Hills Co to be prepared by W. R. Powell, Hippodrome Bldg., Cleveland.

★**New Philadelphia, O.**—Contract for erecting the 3-story brick and fireproof Masonic Temple awarded to John Nagely Lumber Co., of New Philadelphia.

Brazil, Ind.—The Vandalia Ry. Co. (F. T. Hatch, Ch. Engr., St. Louis, Mo.) it is reported, intends erecting a depot to cost $38,000

Ft. Wayne, Ind.—Plans completed for a synagogue and school which the Shara Zedek congregation will erect at a cost of $25,000.

★**Indianapolis, Ind.**—Contract awarded to Bedford Stone & Constr. Co., Indianapolis, for erecting a 6-story terra cotta and brick hotel at Massachusetts Ave. and Alabama St. for Hugh McK. Landon. Cost $200,000.

★**Detroit, Mich.**—Oman Bowling Green Stone Co., Bowling Green, Ky., reported to have secured contract for furnishing stone for the 3-story residence for Mr. Ford and which is to cost, complete, $300,000.

Wyandotte, Mich.—Masons reported to be considering erecting temple costing $50,000.

★**Chicago, Ill.**—Contract awarded to Raymond Concrete Pile Co., 140 Cedar St., New York, for placing Raymond concrete piles in foundation of apartment house for Nels Gross, Delaware Pl. Wm. Ernest Walker, Archt., 38 S. Dearborn St., and for placing concrete piles for Hardy apartment house at 200 E. Delaware St. Chatten & Hammond, Archts., 64 E. Van Buren St.

Des Moines, Ia.—Masons of Adelphic Lodge reported to be planning erecting a $50,000 lodge building.

★**Great Falls, Mont.**—Contract awarded Mar. 8 for erecting Y. M. C. A. Bldg. to Lange Eng. & Constr. Co. at $75,900. Next 3 lowest bids: Olson & Johnson, Great Falls, $76,770; Lease & Richards, $79,984; Brayton Eng. Co., Great Falls, $80,952.

Bremerton, Wash.—Reported bids desired by Max Umbrecht, Hotel Rector, Seattle, for erecting a 2-story reinforced concrete moving-picture theater for Osran Amusement Co. to cost $65,000.

Seattle, Wash.—Reported bids desired for erecting a 3-story brick apartment house for Mrs. G. Gisling at 16 and John Sts. according to plans by R. T. Knipe, White Bldg.; cost $55,000.

Plans completed by R. T. Knipe, White Bldg., for a 3-story brick apartment house which Ida M. Erickson will erect at Howell and Summit Sts. at a cost of $50,000.

Portland, Ore.—The Failing Estate and Reed College, owners of the building at 80 Front St., recently destroyed by fire, it is reported, intend erecting on a larger scale. The burned building cost about $60,000.

NEW INDUSTRIAL PLANTS.

See also "Private Buildings."
Items Arranged Geographically

★**Clinton, Mass.**—Contract for erecting 1 story brick and reinforced steel 758 x 224 ft. perforating factory for Clinton Wire Cloth Co. awarded to Flint Bldg. & Constr. Co., Palmer; cost about $30,000.

Worcester, Mass.—Morgan Spring Co., of Greendale, reported to be considering the erection of a 4-story mill constructed brick manufacturing building as an addition to the plant here.

Brooklyn, N. Y.—M. F. Hamsley will erect on 40th St. and 2d Ave. a 1-story concrete iron foundry.

Chadwick, N. Y.—Reported bids desired by Standard Silk Co. (W. Foster, Mgr.) for erecting a 2-story and basement 106 x 168 ft. addition to their silk mill.

★**Oriskany, N. Y.**—Contract awarded to Griffiths & Pierce, Utica, for a spinning mill, 3 stories, 92 x 147 ft., for H. Waterbury & Sons.

Homestead, Pa.—Carnegie Steel Co. intends making improvements to the plant in this city, including the erection of a steel tie mill, modern office building and a large shipping yard.

New Castle, Pa.—Additions costing $200,000 are to be erected to the plant of the Grasselli Chemical Co.

★**Sparrows Point, Md.**—Contract awarded to Raymond Concrete Pile Co., 140 Cedar St., New York, for building marine railway at the plant of Maryland Steel Co.

★**Charlotte, N. C.**—Contract for erecting a 1 story mill-constructed 128 x 200 ft. mill for Savona Mfg. Co. awarded to Fiske, Carter Constr. Co., Charlotte. Lockwood, Green & Co., Boston, Mass., Engrs. Mill is to be equipped with electric power and machinery for weaving towels, napkins, etc.

★**Palmetto, Fla.**—Contract was awarded Mar. 15 for erecting a 40x168 ft. fruit packing plant for the Manatee Fruit Co. (F. D. Waite, Mgr.) to G. A. Miller, of Tampa.

★**Birmingham, Ala.**—Contract reported awarded to Allis-Chalmers Co., Detroit, Mich., by Carbon Limestone Co., for erecting drying kilns and the installation at the quarries at Hillsville of grinding machines for making pulverized limestone for agricultural use. Cost approximately $40,000.

Reported Decatur Car Wheel Co. (Chas. C. Esdale, Mgr.) intends erecting a frog and switch plant costing $200,000.

The Union Cotton Oil Co. (Geo. A. Blinn, Secy.-Treas.) reported to be planning erecting a plant in Woodlawn, costing $100,000.

Frank A. Dudley, Attorney, Buffalo, N. Y., reported interested in company which intends erecting a plant here for the manufacture of cotton goods and to cost $500,000.

★**Cleveland, O.**—Contract for erecting factory for Elyria Iron & Steel Co. has been awarded to W. I. Thompson & Sons Co., of Cleveland. Ernest McGeorge, Consulting Engr., Cleveland.

Steubenville, O.—LaBelle Iron Wks. Co. reported to be contemplating the erection of an addition to the plant costing $1,000,000, to include a by-product oven for the use of coke.

Mishawaka, Ind.—The enlarging of the plant of the Mishawaka Woolen Mfg. Co. at a cost of $500,000 is reported under consideration. It is reported that the plans include a mill partly 4 and partly 2 stories high, 400 x 100 ft. and an office building 6 stories.

Sioux City, Ia.—Reported plans being prepared for a concrete addition which R. Hurni, 527 S. Chambers St., intends erecting at the packing plant; cost $50,000.

St. Louis, Mo.—Bids desired until Apr. 23 by O. Wenderoth, Superv. Archt., Washington, D. C., for an ammonia refrigerating machine, etc., in U. S. Post Office, St. Louis.

Muskogee, Okla.—H. W. Fairbanks, Archt., and Engr., Dallas, Tex., is reported interested in organizing a company for the purpose of erecting a cotton mill here.

The Dalles, Ore.—Reported Oregon-Washington R.R. & Navigation Co. (J. R. Holman, Ch. Engr., Portland) will erect shops and a roundhouse in this city.

Owen Sound, Ont.—Reported erection of a municipal elevator costing about $200,000 is under consideration. Address Bd. Trade.

MISCELLANEOUS.

See also "Hydraulic Construction and River Improvements."
Items Arranged Geographically

Edgestone, Cement, Pipe, Etc.—Brookline, Mass.—Bids desired until 4 P. M., Mar. 29, by Selectmen for edgestone, Portland cement, stoneware pipe, etc.

Cranes—Newport, R. I.—Bids desired until Apr. 10 at Bureau Yards and Docks, Navy Dept., Washington, D. C. (H. R. Stanford, Ch.), for Spec. 2147, for two 2½-ton, 3-motor electric traveling cranes and a movable bridge, delivered and erected at Naval Torpedo Station, Newport.

Balustrade—New York, N. Y.—Bids desired until Apr. 1 (readvertisement) by Park Bd. (Cabot Ward, Pres.) for furnishing material and constructing an artificial granite balustrade on top of the present granite coping on the newly reconstructed speedway bulkhead wall. Security, $5,000.

Corporation Yard—New York, N. Y.—Bids desired until Apr. 1 by Marcus M. Marks, Pres. Boro. Manhattan, for furnishing material and constructing a corporation yard under Manhattan Bridge, between Madison and Monroe Sts., Boro. Manhattan. Security, $4,000.

Bridge Terminal Work—New York, N. Y.—An issue of $140,332 corporate stock has been authorized by Bd. Estimate to provide terminal facilities for Manhattan Bridge Three Cent Line on both sides of bridge structure. These terminal facilities are estimated to cost $240,000.

★**Boardwalk—Atlantic City, N. J.**—W. I. Risley, City Engr., writes that contract for constructing boardwalk has been awarded to J. N. Ingersoll, of Atlantic City, at $5,900.

Tunnel — Pittsburgh, Pa.—Local press reports state that County Comrs. will let contract in about 30 days for the proposed tunnel through the hill to connect Carson St. and Warrington Ave., from plans of A. D. Neeld. The tunnel to be of the twin tunnel design and estimated cost is nearly $2,000,000.

Competition for Entrance to Schenley Park—Pittsburgh, Pa.—Application to compete for entrance to Schenley Park received by Committee on Competition, 634 Oliver Bldg., until Apr. 10. Open to engineers, architects and landscape architects. Prizes, $500, $300 and $100.

Broken Stone—Dickerson, Md.—Bids desired until Apr. 5 by Commissioners, D. C. (Oliver P. Newman, Chmn.), for furnishing and delivering broken stone and for quarrying and crushing trap rock at the District Quarry, Dickerson, Md.

Parkway Work—Boston, Mass.—Following are 4 lowest bids opened Mar. 22 by Metropolitan Park Comn. (Wm. B. De Las Casas, Chmn.) for building to subgrade Furnace Brook Parkway, from Quincy Shore Reservation to Hancock St., Quincy: (a) John Cashman & Sons Co., 247 Atlantic Ave., Boston; (b) Perini Con. Co.; (c) Jas. H. Fannon; (d) Rowe Contr. Co.

	(a)	(b)	(c)	(d)
70,000 cu. yds. earth grading	$0.23	$0.37	$0.30	$0.30
100,000 cu. yds. filling material	.43	.41	.51	.47
15 M ft. 2-in. spruce plank	.40	.40	.40	.40
5,000 sq. yds. riprap paving	2.15	2.12	1.25	2.25
Totals	$63,700	$67,000	$69,650	$70,850

★*Items marked thus give the names of parties awarded contracts.*

Wire, Wire Rope Clips, Etc.—Memphis, Tenn.—Bids desired until Apr. 10 by Maj. E. M. Markham, Corps Engrs., U. S. A., Mississippi River Comn., Custom House, Memphis, Tenn., for furnishing and delivering about 725,000 lbs. galvanized wire, silicon bronze wire, wire rope clips, etc.; also same time and place separate bids for furnishing and delivering 62,200 lbs. pure manila-bolt rope, both proposals advertised in Engineering Record.

Cement for Dam Work—Louisville, Ky.—Bids desired until Apr. 19 by Maj. J. C. Oakes, Corps Engrs., U. S. A., Louisville, for furnishing and delivering American Portland cement for Dam 43, Ohio River, advertised in Engineering Record.

Cement—Ashtabula, O.—Bids desired until Mar. 31 at office of Lighthouse Inspector, Buffalo, for furnishing approximately 1400 bbl. Portland cement, 800 yd. broken limestone and 500 yd. sand, delivered at Ashtabula Harbor, O.

Pump—Cleveland, O.—The Bd. of Control has voted to let contract for an additional electrical pump for municipal lighting plant as recommended by F. W. Ballard, Comr. of Light and Heat.

Dock and Convenience Station—Detroit, Mich.—In the annual budget the sum of $33,500 was allowed the Park Dept. for a new dock at foot of West Grand Boule.; also $20,000 for a convenience station in Capitol Park.

Transmission Towers—Saginaw, Mich.—Bids desired by the Eastern Michigan Power Co., in care of Fargo Eng. Co., Commonwealth Bld., Jackson, until Apr. 1, for concrete and round piling foundations for two high steel transmission river crossing towers at Bristol St., Saginaw, requiring 70-50 ft. piles and 425 cu. yds. of concrete. Plans and specifications sent on request.

Platforms in Tunnel—Chicago, Ill.—Bids desired until 11 A. M., Mar. 29, by L. E. McGann, Comr. Pub. Wks., to furnish fabricate paint and deliver all structural steel and iron work for working platforms and door in Shafts J, K and M of the Chicago Ave. Pumping Station Tunnel System.

Steel Rails—Chicago, Ill.—Bids desired until 11 A. M., Mar. 29, by L. E. McGann, Comr. Pub. Wks., for furnishing and delivering approximately 99,700 lin. ft. steel rails at points along Wilson Ave.

★**Cement — Elkhorn, Wis.** — Contract awarded Mar. 12 for furnishing 7100 bbls. Portland cement to Barker Lumber Co., of Delavan, at $1.71 per bbl. delivered. H. J. Peters, Co. Highway Comr.

Cement—Seattle, Wash.—All bids opened Mar. 3 by Port Seattle Comrs. (O. E. Remsberg, Secy.) for furnishing 20,000 bbls. Portland cement have been rejected, and it will be purchased in open market.

★**Boilers and Pump—Portland, Ore.**—Contract reported awarded by Port of Portland Comn. to the Ballin Water Tube Boiler Co. for 2 boilers for new dredge Columbia at $26,875 (bids opened Mar. 11).

Steel, Iron, Etc.—Panama.—Bids desired until Apr. 7 by Maj. F. C. Boggs, Corps Engrs., U. S. A., Genl. Purchasing Officer Panama Canal, Washington, for Cir. 908, steel, iron, steel and iron pipe, pipe fittings, sheet brass, sheet and bar copper, brass tubing, etc.

Proposals

For Proposals Advertised see Pages 42, 43 and 44.

WATERWORKS.

Bids Close.		See Eng. Record.
Mar. 29.	C.-I. Pipe, Lewistown, Mont. Adv. Mar. 20.	Mar. 20
Mar. 29.	Valves and Hydrants, Lewistown, Mont. Adv. Mar. 20.	Mar. 20
Mar. 30.	Pipe, Fittings, etc., Washington, D. C.	Mar. 13
Mar. 30.	Water Wks. Material, Union, S. C.	Mar. 27
Mar. 30.	Meters, Etc., Lancaster, Pa.	Mar. 27
Mar. 30.	Steel for Reservoir Roof, Savannah, Ga.	Mar. 27
Mar. 30.	Laying Pipe, Pittsburgh, Pa.	Mar. 27
Mar. 31.	Pumping Station, Toledo, O. Adv. Mar. 13.	Mar. 13
Apr. 1.	Reservoir, Barnesboro, Pa.	Mar. 27
Apr. 2.	Pumps, Seattle, Wash.	Mar. 13
Apr. 2.	Reservoir Excavation, Cleveland, O.	Mar. 27
Apr. 3.	Intake, well, Etc., Sandusky, O. Adv. Mar. 20, 27.	Mar. 20
Apr. 3.	Reservoir, Eugene, Ore.	Mar. 27
Apr. 5.	Meters, Victoria, B. C.	Mar. 27
Apr. 5.	Pipe, Bloomfield, N. J.	Mar. 27
Apr. 6.	Pump, Station and Pump, Lynchburg, Va. Adv. Mar. 20, 27.	Mar. 20
Apr. 8.	Water Works, McCune, Kan.	Mar. 13
Apr. 12.	Laying Mains, Cicero, Ill.	Mar. 27
Apr. 13.	Valves, Toronto, Ont. Adv. Feb. 20 to Mar. 6.	Feb. 20
Apr. 13.	Laying Pipe, Laramie, Wyo.	Mar. 27
Apr. 14.	Water Wks., Barker, N. Y. Adv. Mar. 27.	Mar. 27
Apr. 15.	Wells, Winona, Minn. Adv. Mar. 13.	Mar. 13
Apr. 15.	System, East New Market, Md. Adv. Mar. 27.	Mar. 27
Apr. 15.	Water Works, Morning Sun, Ia.	Mar. 27
Apr. 19.	Water Works Material, Jefferson, Ga.	Mar. 20
Apr. 19.	Mains, Cleveland Heights, O.	Mar. 27
Apr. 20.	C.-I. Pipe, Sacramento, Cal. Adv. Mar. 27.	Mar. 27
Apr. 21.	Pump. Sta. Equip., Durham, N. C. Adv. Mar. 27.	Mar. 27
Apr. 21.	Water Wks. Improv., Durham, N. C. Adv. Mar. 27.	Mar. 27
May 5.	Centrifugal Pump, Kansas City, Mo. Adv. Mar. 20, 27.	Mar. 20

SEWERAGE AND SEWAGE DISPOSAL.

Bids Close.		See Eng. Record.
Mar. 29.	Attica, Ind. Adv. Mar. 20.	Mar. 20
Mar. 30.	Butte, Mont.	Mar. 27
Mar. 30.	Bedford, Ind. Adv. Mar. 27.	Mar. 27
Mar. 30.	Toronto, Ont.	Mar. 27
Mar. 31.	Enumclaw, Wash.	Mar. 13
Mar. 31.	Indianapolis, Ind.	Mar. 20
Mar. 31.	Rochester, N. Y.	Mar. 27
Mar. 31.	Long Island City, N. Y.	Mar. 27
Mar. 31.	Grinnell, Ia.	Mar. 27
Apr. 1.	Flint, Mich.	Mar. 13
Apr. 1.	Maywood, Ill.	Mar. 20
Apr. 2.	York, Pa. Adv. Mar. 20, 27.	Mar. 20
Apr. 3.	Buffalo, N. Y.	Mar. 27
Apr. 5.	Brainerd, Minn.	Mar. 13
Apr. 5.	Connellsville, Pa.	Mar. 27
Apr. 5.	Cedar Rapids, Ia.	Mar. 27
Apr. 5.	Roundup, Mont.	Mar. 27
Apr. 6.	Oaklyn, N. J. Adv. Mar. 27.	Mar. 27
Apr. 6.	Oshkosh, Wis.	Mar. 27
Apr. 6.	Alliance, O.	Mar. 20
Apr. 7.	Fitchburg, Mass. Adv. Mar. 20, 27.	Mar. 20
Apr. 7.	Postville, Ia.	Mar. 27
Apr. 9.	Salem, O.	Mar. 20
Apr. 9.	Salem, O.	Mar. 27
Apr. 10.	Ravena, N. Y. Adv. Mar. 27.	Mar. 27
Apr. 12.	San Antonio, Tex.	Mar. 27
Apr. 14.	Baltimore, Md. Adv. Mar. 27.	Mar. 27
Apr. 15.	State Center, Ia.	Mar. 27
Apr. 16.	Janesville, Wis.	Mar. 27
Apr. 17.	Annville, Pa. Adv. Mar. 27.	Mar. 27
Apr. 19.	Jefferson, Ga.	Mar. 20
Apr. 19.	New Orleans, La.	Mar. 6
Apr. 19.	San Antonio, Tex.	Mar. 27
Apr. 19.	Cleveland Heights, O.	Mar. 27
Apr. 19.	Greenville, Pa.	Mar. 27

BRIDGES.

Bids Close.		See Eng. Record.
Mar. 30.	Cleveland O.	Mar. 20
Mar. 30.	Delaware O.	Mar. 20
Mar. 30.	Illinois	Mar. 20
Mar. 30.	Newark, N. J.	Mar. 20
Mar. 30.	Marion, Ia.	Mar. 27
Mar. 30.	Illinois	Mar. 27
Mar. 31.	Fredericktion, N. H.	Mar. 6
Mar. 31.	Armstrong Corner, N. B.	Mar. 13
Mar. 31.	Dubuque Ia.	Mar. 20
Mar. 31.	Illinois	Mar. 20
Mar. 31.	Dubuque, Ia.	Mar. 27
Mar. 31.	Eaton, O.	Mar. 27
Apr. 1.	Illinois	Mar. 20
Apr. 1.	Jacksonville, Fla.	Mar. 27
Apr. 2.	Somerville N. J.	Mar. 20
Apr. 2.	Marion, O.	Mar. 27
Apr. 2.	Ohio	Mar. 27
Apr. 3.	Illinois	Mar. 27
Apr. 3.	Burford, Ont.	Mar. 27
Apr. 5.	San Marcial, N. M.	Mar. 13
Apr. 5.	Cleveland O.	Mar. 20
Apr. 5.	Redwood City, Cal.	Mar. 27
Apr. 5.	Tupelo, Miss.	Mar. 27
Apr. 6.	Colusa, Cal.	Mar. 13
Apr. 6.	Lake Charles La.	Mar. 20
Apr. 6.	Ypsilanti N. D.	Mar. 20
Apr. 6.	Clearwater, Fla.	Mar. 27
Apr. 6.	Jackson, Mich.	Mar. 27
Apr. 7.	New Hampton, Ia.	Mar. 6
Apr. 7.	Sibley Ia.	Mar. 20
Apr. 7.	Columbus O.	Mar. 20
Apr. 7.	Visalia, Cal.	Mar. 20
Apr. 7.	Hanford, Cal.	Mar. 27
Apr. 7.	Illinois	Mar. 27
Apr. 7.	Benton Harbor, Mich. Adv. Mar. 27.	Mar. 27
Apr. 8.	Painting Bridges, Jersey City, N. J.	Mar. 27
Apr. 9.	Ft. Payne, Ala.	Mar. 27
Apr. 10.	Newport, R. I.	Mar. 27
Apr. 12.	Rockport, Mo.	Mar. 27
Apr. 12.	Stillwater, Minn.	Mar. 27
Apr. 12.	Marysville, Wash.	Mar. 27
Apr. 12.	Camden, N. J.	Mar. 27
Apr. 13.	Bryan, O.	Mar. 27
Apr. 14.	Cleveland, O.	Mar. 27
Apr. 15.	Tavares, Fla.	Mar. 13
Apr. 17.	Hamilton, O.	Mar. 27
Apr. 27.	Leitchfield, Ky.	Mar. 27

PAVING AND ROADS.

Bids Close.		See Eng. Record.
Mar. 30.	Toledo, O.	Mar. 13
Mar. 30.	Greenville, S. C. Adv. Mar. 20.	Mar. 20
Mar. 30.	Manhattan, Kan.	Mar. 20
Mar. 30.	Vinton, Ia.	Mar. 20
Mar. 30.	Neekoosa, Wis.	Mar. 27
Mar. 30.	Beverly, Mass.	Mar. 27
Mar. 30.	Sand Point, Idaho	Mar. 27
Mar. 30.	Eagle Grove, Ia.	Mar. 27
Mar. 30.	Keokuk, Ia.	Mar. 27
Mar. 30.	Williamsport, Pa.	Mar. 27
Mar. 31.	Columbus, O.	Mar. 20
Mar. 31.	Belvidere, N. J.	Mar. 20
Mar. 31.	Mount Holly, N. J. Adv. Mar. 20.	Mar. 20
Mar. 31.	Bonds, Fargo, N. D. Adv. Mar. 20, 27.	Mar. 20
Mar. 31.	Chicago, Ill.	Mar. 27
Mar. 31.	Dubuque, Ia.	Mar. 27
Mar. 31.	Brooklyn, N. Y.	Mar. 27
Mar. 31.	Birmingham, Ala.	Mar. 27
Mar. 31.	Illinois	Mar. 27
Mar. 31.	Baltimore, Md.	Mar. 27
Mar. 31.	Red Oak, Ia.	Mar. 27
Apr. 1.	Bloomsburg, Pa.	Mar. 13
Apr. 1.	Urbana, O.	Mar. 27
Apr. 1.	New York, N. Y.	Mar. 27
Apr. 1.	Cincinnati, O.	Mar. 27
Apr. 1.	Ancona, Ill.	Mar. 27
Apr. 1.	Newark, N. J.	Mar. 27
Apr. 1.	Petersburg, O.	Mar. 27
Apr. 1.	Towson, Md.	Mar. 27
Apr. 1.	Frankfort, Ind.	Mar. 27
Apr. 1.	Fort Huron, Mich.	Mar. 27
Apr. 2.	Ohio	Mar. 13
Apr. 2.	Cincinnati, O.	Mar. 13
Apr. 2.	Columbus, O.	Mar. 20
Apr. 2.	Somerville, N. J.	Mar. 27
Apr. 2.	Rutherford, N. J.	Mar. 27
Apr. 2.	Ohio	Mar. 27
Apr. 3.	Chesterfield, N. J.	Mar. 20
Apr. 3.	Phillipsburg, N. J.	Mar. 27
Apr. 3.	Manchester, Conn.	Mar. 27
Apr. 5.	Ephrata, Wash.	Mar. 13
Apr. 5.	Chehalis, Wash.	Mar. 20
Apr. 5.	Ritzville, Wash.	Mar. 20
Apr. 5.	Bellingham, Wash.	Mar. 20
Apr. 5.	Indiana	Mar. 20
Apr. 5.	California	Mar. 20
Apr. 5.	Everett, Wash.	Mar. 27
Apr. 5.	Newton, N. J.	Mar. 27
Apr. 5.	Cumberland, Md.	Mar. 27
Apr. 5.	Connellsville, Pa.	Mar. 27
Apr. 5.	Curtis, Wash.	Mar. 27
Apr. 5.	Defiance, O.	Mar. 27
Apr. 5.	Pittsburgh, Pa.	Mar. 27
Apr. 5.	North Yakima, Wash.	Mar. 27
Apr. 5.	Indiana	Mar. 27
Apr. 5.	Jamestown, N. D.	Mar. 27
Apr. 5.	Kaukauna, Wis.	Mar. 27
Apr. 6.	Spokane, Wash.	Mar. 6
Apr. 6.	Lake Charles, La.	Mar. 13
Apr. 6.	Sharon, Pa. Adv. Mar. 20, 27.	Mar. 20
Apr. 6.	Indiana	Mar. 20
Apr. 6.	Marshall, Tex.	Mar. 27
Apr. 6.	Oconomowoc, Wis.	Mar. 27
Apr. 6.	Potton, Que.	Mar. 27
Apr. 6.	Newark, O.	Mar. 27
Apr. 6.	Indiana	Mar. 27
Apr. 6.	Paterson, N. J.	Mar. 27
Apr. 6.	Bayonne, N. J. Adv. Mar. 27 (4 Proposals).	Mar. 27
Apr. 7.	Alabama	Mar. 13
Apr. 7.	Gold Hill, Ore.	Mar. 20
Apr. 7.	Marinette, Wis.	Mar. 20
Apr. 7.	Asphalt Plant, Harrisburg, Pa. Adv. Mar. 27.	Mar. 27
Apr. 7.	Indiana	Mar. 27
Apr. 8.	Fargo, N. D.	Mar. 27
Apr. 8.	Jersey City, N. J.	Mar. 27
Apr. 8.	Road Graders, Brownstown, Ind.	Mar. 27
Apr. 9.	Cincinnati, O.	Mar. 20
Apr. 9.	Mt. Gilead, O.	Mar. 27
Apr. 9.	Paris, Ill.	Mar. 27
Apr. 10.	Curtis, Wash.	Mar. 27
Apr. 12.	Painesville, O.	Mar. 27
Apr. 12.	Houston, Tex.	Mar. 27
Apr. 12.	Montclair, N. J. Adv. Mar. 27.	Mar. 27
Apr. 12.	Road Oil, Montclair, N. J. Adv. Mar. 27.	Mar. 27
Apr. 14.	Prairie du Chien, Wis.	Mar. 20
Apr. 14.	Albany, N. Y. Adv. Mar. 27.	Mar. 27
Apr. 15.	Tavares, Fla.	Mar. 13
Apr. 16.	Forest City, Ia.	Mar. 20
Apr. 16.	Forest City, Ia.	Mar. 27
Apr. 19.	Alabama	Mar. 13
May 1.	Kingston Station, Wilkes-Barre, Pa.	Mar. 27

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Bids Close.		See Eng. Record.
Mar. 29.	Dredging, Indiana Harbor, Ind. Adv. Mar. 6 to 27.	Mar. 6
Mar. 30	Dredging, Providence, R. I. Adv. Mar. 6 to 27.	Mar. 6
Mar. 30.	Dykes, South Bend, Wash.	Mar. 13
Mar. 30.	Canals, Shrewsbury, La.	Mar. 20
Mar. 30.	Ditch, Crookston, Minn.	Mar. 20
Mar. 31.	Holmesburg, Pa.	Mar. 27
Apr. 2.	Ditch, Le Sueur, Minn.	Mar. 20
Apr. 5.	Power House, Etc., at Dam, Pittsburgh, Pa. Adv. Mar. 13 to 27.	Mar. 13
Apr. 5.	Providence, R. I.	Mar. 27
Apr. 7.	Ditch, Bloomfield, Mo.	Mar. 20
Apr. 8.	Irrigation Work, Payson City, Utah Adv. Mar. 13.	Mar. 13
Apr. 8.	Drainage, Dresden, Tenn.	Mar. 20
Apr. 10.	Drainage, Greenfield, Ont.	Mar. 27
Apr. 12.	Steel Gates for Locks, Nashville, Tenn. Adv. Mar. 13 to 27.	Mar. 13
Apr. 12.	Bath, N. Y. Adv. Mar. 27.	Mar. 27
Apr. 15.	Dredging, Buffalo, N. Y. Adv. Mar. 20, 27.	Mar. 20
Apr. 15.	Lakewood, O.	Mar. 27
Apr. 19.	Toledo, O.	Mar. 27
Apr. 20.	Alliance, O.	Mar. 27
Apr. 20.	Douglas, Wyo.	Mar. 27
Apr. 20.	Dredging, Hartford City, Ind.	Mar. 27
Apr. 20.	River Improvement, Tiffin, O.	Mar. 27
Apr. 23.	Flood Protection Work, Indianapolis, Ind.	Mar. 20

PUBLIC BUILDINGS AND SCHOOLS.

Bids Close.		See Eng. Record.
Mar. 30.	Detroit, Mich.	Mar. 6
Mar. 30.	Pierre, S. D.	Mar. 13
Mar. 30.	Creston, Neb.	Mar. 20
Mar. 30.	Indianapolis, Ind.	Mar. 20
Mar. 30.	Hartford, Conn.	Mar. 20
Mar. 30.	Hartford, Conn.	Mar. 27
Mar. 30.	Buffalo, N. Y.	Mar. 27
Mar. 31.	Cambridge, O.	Mar. 13
Mar. 31.	Wickliffe, O.	Mar. 20
Mar. 31.	Rosebank, S. I., N. Y.	Mar. 27
Apr. 1.	Greenville, Miss.	Mar. 20
Apr. 1.	Jerome, Pa.	Mar. 20
Apr. 1.	Galveston, Tex.	Mar. 27
Apr. 1.	Dannemora, N. Y.	Mar. 27
Apr. 2.	Plainfield, N. J. Adv. Feb. 27 to Mar. 6.	Feb. 27
Apr. 2.	Tontogany, O.	Mar. 13
Apr. 3.	Washington, Miss.	Mar. 20
Apr. 3.	Largo, Ind.	Mar. 27
Apr. 5.	Tuba, Ariz.	Mar. 13
Apr. 5.	Ames, Ia.	Mar. 13
Apr. 5.	Vicksburg, Miss.	Mar. 20
Apr. 5.	Johnsonburg, Pa.	Mar. 27
Apr. 6.	Live Oak, Fla.	Feb. 27
Apr. 6.	Ridgeland, S. C.	Mar. 13
Apr. 6.	Edinburg, O.	Mar. 13
Apr. 6.	Wilkesboro, N. C.	Mar. 20
Apr. 6.	New Brunswick, N. J.	Mar. 20
Apr. 6.	Nashville, Tenn.	Mar. 20
Apr. 7.	Wilmington, Del. Adv. Mar. 27.	Mar. 27
Apr. 8.	Berlin Center, O.	Mar. 20
Apr. 10.	Newport, R. I.	Mar. 27
Apr. 10.	Havre, Mont.	Mar. 27
Apr. 12.	Cincinnati, O.	Mar. 13
Apr. 13.	Morrall, O.	Mar. 20
Apr. 13.	Industry, N. Y. Adv. Mar. 20 and 27.	Mar. 20
Apr. 14.	Lowell, O.	Mar. 27
Apr. 14.	Dayton, O.	Mar. 27
Apr. 15.	Chillicothe, O.	Mar. 27
Apr. 15.	Omaha, Neb.	Mar. 27
Apr. 19.	Jacksonville, Fla.	Mar. 27
Apr. 19.	Corpus Christi, Tex.	Mar. 20
Apr. 20.	Portland, Me.	Mar. 20
Apr. 20.	Gloucester, N. J. Adv. Mar. 27.	Mar. 27
Apr. 23.	Toledo, O.	Mar. 20
Apr. 28.	Ardmore, Okla.	Mar. 27
June 1.	Harrisburg, Pa.	Mar. 13

PRIVATE BUILDINGS.

Bids Close.		See Eng. Record.
Apr. 1.	Pittsburgh, Pa.	Mar. 13
Apr. 1.	Klamath Falls, Ore.	Mar. 20
Apr. 5.	Kenosha, Wis.	Mar. 20
Apr. 9.	Freeport, Pa.	Mar. 27

NEW INDUSTRIAL PLANTS.

Bids Close.		See Eng. Record.
Apr. 23.	St. Louis, Mo.	Mar. 27

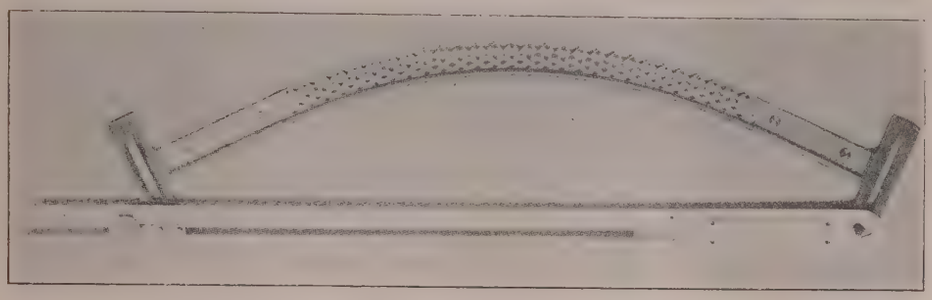
MISCELLANEOUS.

Bids Close.		See Eng. Record.
Mar. 29.	Coal Handling Apparatus in Mint, Philadelphia, Pa. Adv. Mar. 6, 13.	Mar. 6
Mar. 30.	Freight Lift, St. Louis, Mo.	Mar. 6
Mar. 30.	Elevator, Detroit, Mich.	Mar. 6
Mar. 30.	Garbage Disposal, Norfolk, Va.	Mar. 13
Mar. 30.	Steel Reinforcing Bars, Etc., Panama	Mar. 20
Mar. 30.	Civic Ry. Supplies, Toronto, Ont. Adv. Mar. 27.	Mar. 27
Mar. 31.	Sprinkler System for Freight Shed, Seattle, Wash.	Mar. 20
Mar. 31.	Cement, Ashtabula, O.	Mar. 27
Apr. 1.	Garbage Disposal, Wilmington, Del. Adv. Feb. 27 to Mar. 27.	Feb. 27
Apr. 1.	Balustrade, New York, N. Y.	Mar. 27
Apr. 1.	Corporation Yard, New York, N. Y.	Mar. 27
Apr. 3.	Elevator, Pearl City, T. H.	Mar. 6
Apr. 3.	Garbage Plant, Rock Island, Ill.	Mar. 6
Apr. 3.	Boat Hulls, Electric Light Plants, Etc., for Dam, Pittsburgh, Pa. Adv. Mar. 6 to 27.	Mar. 6
Apr. 5.	Broken Stone, Dickerson, Md.	Mar. 27
Apr. 6.	Wire, Fencing, Etc., Ogden, Utah	Mar. 13
Apr. 6.	Electric Light Plant Improvement, Kinston, N. C. Adv. Mar. 20, 27.	Mar. 20
Apr. 7.	Steel, Iron, Etc., Panama	Mar. 27
Apr. 9.	El. Rys., Routes 4 and 36, New York, N. Y.	Mar. 20
Apr. 10.	Competition for Entrance to Schenley Park, Pittsburgh, Pa.	Mar. 27
Apr. 13.	Stone, New Orleans, La.	Mar. 20.
Apr. 10.	Cranes, Etc., Newport, R. I.	Mar. 27
Apr. 10.	Manila Bolt Rope, Memphis, Tenn. Adv. Mar. 27.	Mar. 27
Apr. 10.	Galvanized Wire, Wire Rope, Etc., Memphis, Tenn. Adv. Mar. 27.	Mar. 27
Apr. 19.	Cement for Dam Work, Louisville, Ky. Adv. Mar. 27.	Mar. 27
Apr. 20.	El. Ry., Sect. 2, Route 12, Brooklyn, N. Y. Adv. Mar. 27.	Mar. 27

★*Items marked thus give the names of parties awarded contracts.*

Adjustable Arc Ruler

To railroad engineers and draftsmen who have use for curve templates an adjustable arc ruler exhibited at the National Railway Appliance Show in Chicago will be of interest. It consists of a steel bar with a slot in which a nut at the end of the ruler slides back and forth to give the proper degree of curvature to a flexible ruler. The legs of the small steel triangles noted in the cut are fastened to two strips of metal which slide by each other as the ruler is opened and closed. The scale is graduated to read the radius of a given curve in inches and the degree of curve for railroad work. Concave curves are formed by sliding the bar to the upper limit of the end slots. Separate readings are provided for this setting. The ruler is being marketed by the William S. Weston Company, Chicago.



ADJUSTABLE ARC RULER THAT READS THE RADIUS OF A GIVEN CURVE IN INCHES AND THE DEGREE OF CURVE FOR RAILROAD WORK

Balanced Pump, on Rollers, Produces no Vibrations

A demonstration of the perfection of balance of a Luitweiler horizontal, double-acting cam-driven triplex pumping engine was made recently by operating the machine at 105 r. p. m. while supported on a pair of polished steel rollers against one of which an egg was held, as shown in the accompanying photograph. The egg was not crushed during the test. At the same time, in order to prove that the machine did not produce any appreciable vibration, a 20-penny nail was balanced on the casing, and maintained its upright position.

The balance of this type of pump is secured through three symmetrical cams mounted on a shaft 120 deg. apart, and a constant volumetric water movement and pressure are obtained. The result, it is claimed, is a floating shaft with equal pressure at opposite sides which negatives the pressure upon the shaft and relieves the bearings of the usual friction found in pumps where the thrust is in one direction only on the bearings.

It is the intention of the Luitweiler Pumping Engine Company, of Rochester, N. Y., to locate factories for the building of pumps, which include large steam pumping units for municipal work, at other points in the United States and Canada, rather than one large factory at one point. This is to effect a saving in freight rates and to facilitate supplying pumps for shipments to foreign countries as well.

Business Notes

The C. H. & E. Manufacturing Company, of Milwaukee has moved into its new plant at 380 Clinton Street.

The Charles T. Topping Machinery Company, dealing in mine, quarry and contractors' equipment, of Pittsburgh, Pa., has moved its offices to the Oliver Building.

The Sullivan Machinery Company, of Chicago, states that following May 1 its Denver office will be located in the Equitable Building, with George W. Blackinton manager.

R. H. Hyland & Company, of Chicago, local agents for Insley concrete handling and distributing equipment, Eureka mixers, the G. H. Williams Company buckets and derricks, W. W. Patterson Company pulley blocks and Norton ball-bearing jacks, have moved into new offices at 323 Wells Street.

The Yale & Towne Manufacturing Company, of New York City, has elected Walter C. Allen president and general manager. Mr. Allen was heretofore vice-president and general manager. After serving for forty-six years as president Henry R. Towne declined re-election, but remains chairman of the board.

A. P. Robinson, formerly vice-president and chief engineer for the W. E. Austin Machinery Company, of Atlanta, Ga., has become associated with the Insley Manufacturing Company, engineers and manufacturers of Indianapolis, Ind., in the capacity of manager of sales. Mr. Robinson was graduated from Princeton University in 1903, and worked, for a time, on the surveying parties of the Pennsylvania Railroad Company. In 1904 he became a member of the firm of Cadwalader & Robinson, of Pittsburgh, and spent four years in this connection, doing a general engineering and contracting business. In 1909 he entered the service of the company from which he has lately severed his connection in the capacity of engineer and salesman.

Trade Publications

The following companies have recently issued trade publications:

Gray-Aldrich Company, Boston. Leaflet giving specification and price list for gasoline-driven diaphragm pumps for contractors' use.

S. E. Parker, 1800 N. Francisco Avenue, Chicago. Catalog, 5 x 7 in., 20 pages, illustrated. Describes hand-power derricks of 1000 to 4000 lb. capacity, hoist equipment for concrete towers, friction hoists and material elevators.

Marion Steam Shovel Company, Marion, Ohio, Catalog, 5½ x 8 in., 30 pages, illustrated. Describes the Marion shovel for handling clay and shale.

Chain Belt Company, Milwaukee. Catalog 60, 7½ x 9½ in., 64 pages, illustrated. Concrete mixers and pavers. Specifications and drawings are included.

New Jersey Meter Company, Plainfield, N. J. Folder, 5 x 7 in., illustrated. Describes new meter used to measure the quantity of air consumed by pneumatic tools in operation.

Asbestos Protected Metal Company, Pittsburgh. Catalog, 8¼ x 11 in., 64 pages, illustrated. Examples of APM roofing and siding applications to all sorts of structures throughcut the country.

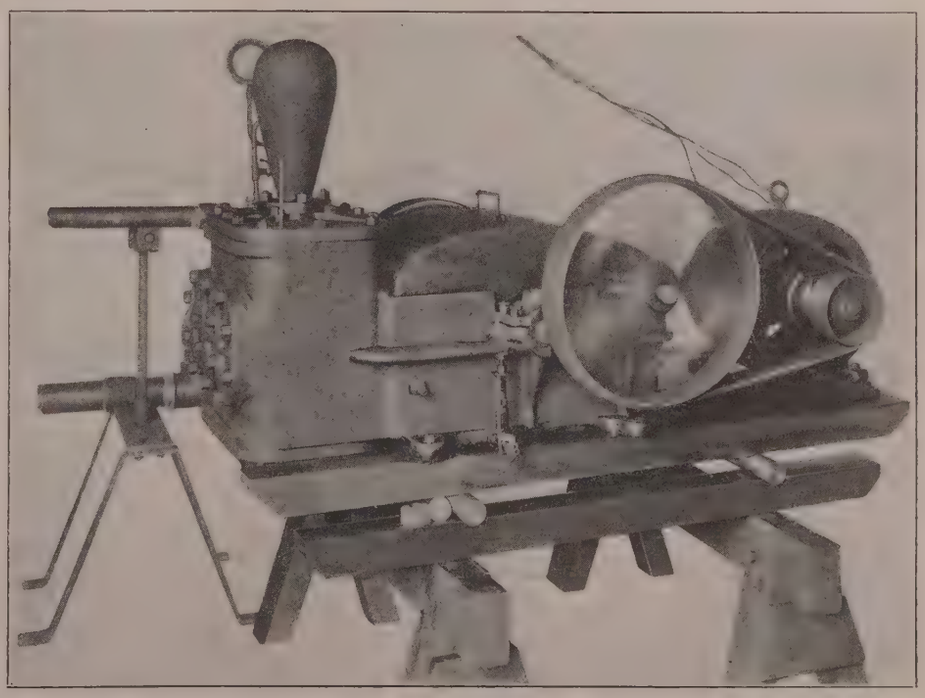
Angier-Mills, Ashland, Mass. Leaflet describing "Rubberglass," a translucent wire fabric covering for windows. It is claimed to be cheaper than glass, waterproof, durable and unbreakable.

Milwaukee Concrete Mixer Company, Milwaukee. Catalog, 7½ x 10 in., 74 pages, illustrated with halftones and drawings. The Milwaukee mixer equipped with steam and motor power for general contracting and paving work.

The Gregg Company, 80 Wall Street, New York. Booklet, 3¾ x 6 in., illustrated. Industrial railway equipment for standard and narrow gage, including portable track, switches, frogs and crossings, turntables and side-dump cars.

Sullivan Machinery Company, Chicago. Bulletin 65-C, 6 x 9 in., 36 pages, illustrated. Diamond core drills and equipment and numerous tables of estimates and prices for a variety of types. Bulletin 71-A, 6 x 9 in., 32 pages, illustrated. Air-lift pumping and its efficiency with data relative to pipe, air compression and piston displacement.

C. W. Hunt Company, West New Brighton, N. Y. Catalog 102, 4 x 6½ in., 112 pages, illustrated. Coal-handling machinery, hoists, conveyors, industrial railways, electric locomotives, electric and steam hoists, manila rope, etc. Illustrations of various plants, showing applications of this machinery, are given on the last pages of the book. Catalog 083, 6½ x 9¼ in., 18 pages, illustrated. Electric hoist winches and capstans. Catalog 11-5, 6½ x 9¼ in., 80 pages, illustrated. Industrial railways and equipment in detailed form.



AN EGG AND A 20-PENNY NAIL DEMONSTRATED THE PERFECT BALANCE OF THIS PUMP

New Construction Activities

It appears that shipments of steel during the last month will about equal current March orders. The total output of the industry all over the country has increased during March until it has now reached about 70 per cent of ingot capacity. Shipments during the month are expected to average 58,000 tons a day. In addition to the fair condition of the steel industry, several large building projects came up last week, and press reports state that the Lehigh Valley Railroad has been receiving bids for the $5,000,000 terminal project at Buffalo noted in the issue of Jan. 23.

Buildings

A contract has been let for constructing a $500,000 cotton plant at LaGrange, Ga. A $250,000 office building has been contracted for at Seattle, and contracts for the Free Academy building at Utica, New York, total $325,000. It is reported that bids are desired at McKeesport, Pa., for a $200,000 high school, and at Oakland, Cal., for a $300,000 factory. It is said that the city commissioners of Jersey City, N. J., are about to ask bids on building work totaling $1,000,000. Plans have been prepared by a Philadelphia architect for a $1,500,000 hospital plant at that city. Detailed plans have been ordered for the $3,000,000 city hall and court house at Pittsburgh, and it is expected that construction will begin this year. The Governor of Washington has signed a bill appropriating $1,500,000 for the completion of buildings at Olympia. The Board of Health of Detroit has approved plans for a $400,000 hospital, and plans have been prepared for a $500,000 theater in Boston.

Bridges and Pavements

The Great Northern Railway is preparing plans for a $300,000 bridge over the Columbia River at Malaga, Wash. It is reported that bids for two of the large reinforced concrete bridges to be built at Seattle will be received about May 15. The construction of a $120,000 bridge near Martinez, Cal., has been authorized.

A $90,000 paving contract has been awarded at Fairmont, W. Va. Pekin, Ill., has awarded a $44,000 street improvement contract. A $40,000 section of the Columbia highway in Oregon has been awarded. Road contracts totaling $60,000 were awarded at Redwood City, Cal., and other contracts on bids opened March 15 are pending. Bids will be received April 20 for resurfacing 47 miles of New York State highways. Bids are desired on paving work in Long Island City and on State highway work in Maryland. Bids are desired on 128,000 sq. yd. of paving in Beloit, Wis., and on more than 30 mi. of paving and road work at Jacksonville, Fla.

Waterworks and Sewers

Contracts awarded on the new filtration plant at Cleveland total $370,000. Billings, Mont., has awarded contracts for waterworks improvements which total $143,000. It is reported from Saanich, B. C., that a $142,000 contract for pipe and special castings has been closed. Bids are desired for a settling basin and filter plant at Chillicothe, Mo. The Department of Public Works at Milwaukee has advertised bids for the construction of a $200,000 intake tunnel. The bill authorizing the city of Hartford to issue $2,000,000 additional water supply bonds for completing the Nepaug system has passed the Connecticut State Senate. Plans have been completed for a waterworks system at Zanesville, Ohio, which will cost $248,000. The bill which allows Watervliet to issue $625,000 bonds for a new water supply has been signed by the Governor of New York.

A sewer contract for $79,000 has been awarded at Cleveland, and another for $41,000 at Kent, Ohio. Bids are desired in Brooklyn on a sewer contract for which $120,000 security will be required. Bids are desired on a sewerage system and disposal plant to cost $100,000 at Port Chester, N. Y. Clinton, N. C., and Madison, Wis., desire bids on 5½ mi. and 15 mi. respectively of sewer construction. Ordinances appropriating $1,000,000 for sewer construction in Boston have passed a second reading in the city council. Plans have been prepared for a $300,000 sewer at Salt Lake City, Utah.

Miscellaneous

It is reported that the El Paso & Southwestern Railroad will build a $1,000,000 line in Arizona. It is reported that $4,000,000 will be spent during the next three years on grade separation at Indianapolis. The incorporation of a company to build a 60 mi. road from North Augusta to Greenwood, S. C., is reported. A $55,000 beach protection contract has been awarded at Cape May, N. J. Los Angeles has contracted for harbor improvements which will cost $130,000. A contract has been awarded for a ball park which will cost $85,000 in Harrison, N. J. Bids are desired on April 20 for the $150,000 sea wall to be constructed at Seattle. It is reported from Rochester, N. Y., that new bids will soon be called for on river improvement work which will cost $284,000. It is reported that bids are desired on drainage work at Union City, Tenn., involving 1,500,000 cu. yd. of levee construction. According to reports from Valdosta, Ga., the South Georgia Power Company, recently incorporated with a capital of $2,500,000, is preparing plans for the construction of a hydroelectric plant 4 mi. outside the city to supply power to the city and its vicinity.

Contracting News

Of Special Interest to Engineers, Contractors, Builders and Manufacturers of Engineering and Building Supplies

WATERWORKS.

Items Arranged Geographically

Boston, Mass.—Bids reported desired until Apr. 1, Dept. Pub. Wks., Boston (L. K. Rourke, Comr.), for constructing a tower of Quincy granite around steel water tower on Mt. Bellevue St., West Roxbury. Dexter Brackett, Engr., 1 Ashburton Pl., Boston.

Cambridge, Mass.—Geo. A. Johnson of New York has been engaged to prepare plans and supervise construction of a filtration plant, to cost $250,000 to $300,000.

Dartmouth, Mass.—At a recent town meeting it was voted to appropriate $50,000 for water works.

Middleboro, Mass.—Bids desired until Apr. 6 (extension of date from Apr. 1) for a 500,000-gal. concrete tank, supported on concrete tower, about 110 ft. from ground to bottom of tank; cost about $25,000. Engineer G. A. Sampson, 14 Beacon St., Boston.

Providence, R. I.—According to reports recently submitted by experts employed by City, the creation of an increased water supply by construction of storage reservoir at Kent and building a gravity viaduct from the reservoir to Sockanosett, as recommended by City Council Water Supply Com., is unanimously advocated as the best solution of the city's water problem. The estimates range from $9,000,000 to $11,424,540.

Warwick, R. I.—O. Perry Sarle, of Providence, stated to have completed report on proposed construction of water works and estimates cost of a plant at Noose Neck River, at $388,998 or at Warwick Pond at $181,866.

New Britain, Conn.—Wm. H. Hall, City Engr., writes preliminary work will be started Apr. 1 on proposed Upper Burlington supply.

Hartford, Conn.—State Senate has passed bill permitting the city to issue $2,000,000 additional water supply bonds This bond issue which is to furnish funds for use on the Nepaug system.

Binghamton, N. Y.—Bids desired until May 15 by Bd. Water Comrs. (John D. Davidson, Secy.) for a horizontal cross compound high duty crank and flywheel pumping engine of 10,000,000 gals. daily capacity, advertised in Engineering Record.

Buffalo, N. Y.—Henry L. Lyons, Deputy Water Comr., writes that work of construction at the Porter Ave. pumping station has been going on for 3 or 4 years. The bond issue of $25,000 recently reported is one of the series, and will probably be the final one.

Gates, N. Y.—Bids will be received by the Water Comrs. in April for water works to cost about $30,000. H. C. Kittredge, Engr., German Insurance Bldg., Rochester.

Hilton, N. Y.—Village Trus. have authorized H. C. Kittredge, German Insurance Bldg., Rochester, to prepare plans for water system. Bids to be received about June 1 for construction.

Le Roy, N. Y.—The proposed work contemplated in connection with $105,000 bond issue recently voted will include an earthen dam 500 ft. long, 32 ft. high, 25,000 ft. 14-in. wood pipe of 1¼-in. fir lumber and a 700,000-gal. pressure filter plant. Engineer, J. P. Wells, Exchange Pl. Bldg., Rochester. C. A. Chapman, Village Clk.

Watervliet, N. Y.—The Governor has signed the Sage-Baxter bill increasing from $497,000 to $625,000 the amount of bonds which Watervliet may issue for construction of its water works.

Burlington, N. J.—Common Council has authorized plans prepared for installation of a new pumping system at city water works station.

Camden, N. J.—Finance Com. of Council has recommended bond issue of $50,000 for construction of an auxiliary water station at Delair.

Clinton, N. J.—Bids desired until Apr. 9 by Bd. Managers New Jersey State Reformatory for Women, Clinton, for extension of water line systems.

East Orange, N. J.—Bids reported desired until Apr. 12 by A. A. Reimer, Secy. Water Comrs., for centrifugal pumps and condensers.

Pennsylvania—Following permits have been issued by Dept. of Health at Harrisburg (Dr. Saml. G. Dixon, Comr.):

Wampum—Approval of source of supply from drilled well and pumping equipment.

Ohio Valley Water Co., Bellevue—Crossing under Ohio River.

Hellertown—Additional sources of supply and gravity main.

Williamsport Water Co.—Improvements to well supplies and new pumping equipment.

Conemaugh & Franklin Water Co., Conemaugh—Approval of storage reservoir and disinfection apparatus.

Philadelphia — Express and loop main extensions to distributing system in commercial district.

Ridgeway, Pa.—Borough Council reported to have decided to double capacity of filtration plant, at cost of $11,000.

Kensington, Md.—The Mayor and Council are reported to have rejected all bids received Feb. 20 for construction of water works and sewer system, and for purchase of bonds, and will receive new bids.

Clinton, N. C.—Bids desired until April 27 by H. A. James, Town Clk., for $23,000 water and sewerage bonds.

Southport, N. C.—Bids desired by Henry P. O. Hagen, City Engr., about Apr. 12 for construction of water work, to include 2 motor drive 500 gal. pump, 100,000 gal. trestle and tank, 100,000 gal. reinforced reservoir, 5 miles mains, hydrants and valves, fittings, deep well, compressed air system; cost $24,000. Engineers, J. B. McCrary Co., Atlanta, Ga.

Decatur, Ga.—Citizens voted Mar. 20 to issue $7,000 bonds for water works improvements and $18,000 for sewer work.

Hawkinsville, Ga.—Bonds in the sum of $20,000 reported sold to be used for water works and sewer extensions.

Royston, Ga.—Citizens reported to have voted $15,000 bonds for water works and sewer system.

Vivian, La.—Bids desired until Apr. 16 by Mayor and Town Council for furnishing material and constructing a system of water works, also same time and place separate bids for $35,000 water works bonds. J. D. Houston, Town Clk.

Barberton, O.—Bids desired until Apr. 5 by Geo. M. Korns, City Aud., for $17,500 bonds, for enlarging water works.

Belleville, O.—Glen Shaffer, City Clk., writes bids desired until Apr. 15 for purchase of $25,000 bonds for construction of water works, from plans of Smith & Boulay, Toledo.

Canton, O.—It is reported that a bond issue of $47,000 will be required for water main extension.

Cincinnati, O.—Bids desired until Apr. 8 by Philip Fosdick, Dir. Pub. Service, for constructing a horizontal turbine water wheel for filtration plant, California, O., also same time and place separate bids for laying c. i. pipe, special castings, and valves and other miscellaneous work for the Water Distribution System, for 36-in. loop main in St. Joseph Foundling Asylum property, Tennessee and Ridgeway Aves.

★**Cleveland, O.**—Contracts have been awarded by Bd. of Control Mar. 19 as follows: To Masters & Mullen Constr. Co., for superstructure for coagulent house and other miscellaneous work for the division of water, at $38,905; to Walsh Constr. Co., Davenport, Ia., for construction of the filtered water reservoir at Division Ave., filtration plan (bids opened Mar. 17) at $272,636; to Rensselaer Valve Co., Troy, N. Y., for all the valves under Schedule A and for one 48-in. gate-valve under Schedule B (bids opened Mar. 12) at $41,676; and to Pratt & Cady Co., Hartford, Conn., for all valves under Schedule B, with exception of one 48-in. gate-valve (bids opened Mar. 12) at $17,201.

Bids desired until Apr. 8 by A. R. Callow, Comr. Purchases and Supplies, for structural steel concrete form for West Side Tunnel, Dept. Pub. Utilities, Div. of Water.

Monroeville, O.—The Bd. of Pub. Affairs contemplate installation of a filtration plant.

Port Clinton, O.—Bids reported desired until Apr. 12 by Wm. H. Williamson, Village Clk., for $10,000 bonds issued for the purpose of rebuilding pumps at water works pumping station.

★*Items marked thus give the names of parties awarded contracts.*

Zanesville, O.—Plans and specifications for the proposed well system of water for city, reported completed by W. J. Sherman Co., of Toledo, estimated to cost $248,118. The plans call for brick and concrete housings for 16 new wells and 4 old ones, a covered concrete and brick collecting reservoir with a capacity of 1,000,000 gals. provided with sluice gates and patent check valves. Specifications also call for a line of flood walls.

Detroit, Mich.—The Bd. of Water Comrs. is arranging to install a set of screen chambers on intake lines to the pumping station from plans of Theo. A. Leisen, General Supt. for Bd.; approximate cost $20,000.

Joliet, Ill.—City Council has adopted ordinance for a new water main system to cost $51,167.

Monticello, Ill.—An election will soon be held to vote $10,000 bonds for waterworks improvements, to include a 10-in. well and two new direct pressure pumps.

Peoria Heights, Ill.—Bids desired until Apr. 19 by Bd. Local Improv. for constructing a system of water works, including 85,085 lin. ft. c. i. pipe with specials, 98 hydrants, 69 valves and 69 valve boxes, 2 centrifugal pumps directly connected to motors and electric controls of same, constructing a pumping station, steel tower and 50,000 gal. tank. Chas. H. Dunn, Engr., Arcade Bldg., Peoria. E. J. Brayton, Village Clk.

Beloit, Wis.—The Wisconsin Comn. is reported to have authorized Beloit Water, Gas & Electric Co., to issue $100,000 bonds for extensions and improvements to system.

Menomonee Falls, Wis.—G. R. Bascom, of the University of Wisconsin, at Madison, is making a preliminary report on water works.

Milwaukee, Wis.—Bids desired until Apr. 19 by Fred G. Simmons, Comr. Pub. Wks., for constructing Shore Tunnel and all shafts of the Linwood Ave. intake on Western shore of Lake Michigan, advertised in Engineering Record.

Davenport, Ia.—Bids desired until Apr. 6 by Bd. Pub. Wks. (J. W. Crowley, Comr.) for furnishing material and constructing sewers and water services in this city.

Marcus, Ia.—Floyd Barnes, City Clk., writes bids are desired until Apr. 15 for the purchase of bonds, to be used for constructing water works. Engineer not yet engaged.

Newton, Ia.—Bids reported desired until Apr. 5 by O. B. Kipp, City Clk., for improvements to the water works.

Duluth, Minn.—The City Council has ordered construction of a 1,000,000-gal. concrete reservoir. Estimated cost $14,000. D. A. Reed, Mgr.

★Contract awarded by Water and Light Dept. Mar. 16, for c.-i. pipe to the U. S. Cast Iron Pipe & Fdry. Co, at $28,377.

Virginia, Minn.—Within the next 2 months the Water & Light Dept. expect to purchase two 2000 gals. per minute motor-driven turbine pumps directly connected to 100 hp motors; also material for erection of 2 miles of 3-phase 2300-volt transmision line. C. T. Harding, Supt.

Pratt, Kan.—M. P. Jones, City Clk., writes that it is proposed to extend and enlarge the water system at a cost of $20,000 and do the work under supervision of Frank Haskins, Water Supt. E. T. Archer & Co., Consulting Engrs., New England Bldg., Kansas City, Mo.

Fordyce, Neb.—Bids desired by L. S. Wise, Village Clk., until Apr. 20 for constructing water works. Engineer, J. D. Clair Smith, of Hartington.

Omaha, Neb.—Bids reported desired until Apr. 7 by Bd. Metropolitan Water Dist. (R. B. Howell, Mgr.), for work in connection with the proposed dyke to be constructed on east bank of Missouri River 5 miles above pumping station at Florence, sinking approximately 12 50-ft. piles to a depth of from 30 to 40 ft. below bed of river, and 15 60-ft. piles to a depth of 40 ft., also driving 20 lin. ft. steel sheet piling 30 ft. long, below bottom of a trench to be excavated in the river bank 5 ft. deep.

Casselton, N. D.—L. E. Correll, City Aud., writes nothing definite yet done for constructing water works or sewer system. Now making test of wells for water works.

Judith Gap, Mont.—An election will soon be held to vote on issuing $10,000 bonds for water works and $6,000 for a sewer system.

Billings, Mont.—Bids were opened as follows, Mar. 17, for furnishing material and improving city water works system from plans of Burns & McDonnell, of Kansas City, Mo.:

★Filters, awarded to Pittsburgh Filter Mfg. Co., Pittsburgh, Pa., at $34,500. Other bids: Frank Savaresy, Billings, $35,000; Kennicott Co., Chicago, Ill., $29,711; Norwood Eng. Co., Florence, Mass., $40,250; Roberts Mfg. Co., Darby, Pa., $31,500.

★Pump and motor, awarded to Hanlon-Okes, Sioux City, for Worthington pump, $1,950.

★General construction—Four lowest bids: Gordon & Taylor Contr. Co., Denver, Colo., $34,710 (awarded contract); Frank Savaresy, Billings, $37,526; Intermountain Constr. Co., Tecumseh, Neb., $38,009; Hanlon-Okes, Sioux City, Ia., $40,520.

★Unit price of Gordon-Taylor, successful bid on general construction.

3,750 ft. 4-in. c.-i. pipe, furnish and lay	$0.58
12,210 ft. 6-in. c.-i. pipe, furnish and lay	.83
5,340 ft. 8-in. c.-i. pipe, furnish and lay	1.18
9,440 ft. 10-in. c.-i. pipe, furnish and lay	1.41
760 ft. 4-in. c.-i. pipe, take up and relay	.20
9,170 ft. 4-in. wood pipe, replace	.01
760 ft. 6-in. wood pipe, replace	.02
2,350 ft. 8-in. Kalamein pipe, replace	.01
5 two-way hydts., furnish and set	33.00
30 steamer hydts., furnish and set	37.00
5 4-in. valves, furnish and set	14.00
18 6-in. valves, furnish and set	18.00
5 8-in. valves, furnish and set	25.00
10 10-in. valves, furnish and set	35.00
38 connections to old system	4.00
105 sq. yds. bitulithic pavm't, replace	2.50

★Filter house, settling basins, etc., awarded to Hanlon-Okes, Sioux City, Ia., at following unit bid:

10,000 cu. yds. earth excav.	$0.80
2,410 cu. ft. concrete, Class "A"	9.65
15 cu. yds. concrete, Class "B"	9.00
203,500 lbs. reinforcing steel bars	.035
20,350 lbs. structural steel	.032
700 ft. 4-in. Class "B" c.-i. pipe, furnish and lay	1.10
40 ft. 16-in. Class "A" c.-i. pipe, furnish and lay	7.85
785 ft. 24-in. Class "A" c.-i. pipe, furnish and lay	6.20
300 ft. 6-in. drain tile, furnish and lay	1.02
300 ft. 8-in. drain tile, furnish and lay	1.07
450 ft. 10-in. drain tile, furnish and lay	1.15
0 ft. 12-in. drain tile, furnish and lay	1.30
35 ft. 14-in. drain tile, furnish and lay	1.45
325 ft. 15-in. vit. sewer pipe, furnish and lay	2.00
45 ft. 20-in. vit. sewer pipe, furnish and lay	2.50
400 ft. 24-in. vit. sewer pipe, furnish and lay	3.00

Total, $71,790.

Medicine Lake, Mont.—Bids reported desired until Apr. 12 for $18,000 bonds, issued for constructing water works.

Chillicothe, Mo.—Bids desired by Bd. Pub. Wks. (P. J. Dixon, Secy.) until Apr. 16 for all material and construction for settling basin, coagulating basin and filter plants, the mechanical equipment for filter plants and all the pumps for the new system, from plans of Harper & Stiles, Grand Ave. Temple, Kansas City.

Edina, Mo.—Bids desired until Apr. 15 by City Clerk for constructing water works.

★**Neosho, Mo.**—Construction work on first contract for water works improvements has been completed and city has given order for about 1 mile of pipe extension. Work will be performed by the Commercial Constr. Co., of Kansas City, Mo., who were contractors on first installment of work. John Beavers, Mayor; Engineer, Albert C. Moore, Frisco Bldg., Joplin.

Ashdown, Ark.—Bonds in the sum of $84,000 reported sold to be used for construction of water works and sewer system.

Booneville, Ark.—Winters & Dove, of Ft. Smith, engaged to make preliminary surveys and estimate cost of water works.

Timpson, Tex.—B. J. Hawthorn, Mayor, writes bids will be received about June 1 for constructig the proposed water works; cost about $17,000. Engineer, Henry E. Elrod, of Dallas.

Montrose, Colo.—P. W. Pinkerton, City Mgr., writes that bonds in the sum of $90,000 have been sold for reconstructing and extending the water works, and bids for construction work will be received about May 1, from plans of Burns & McDonnell, of Kansas City, Mo.

Kirkland, Wash.—Bids reported desired until Apr. 19 by J. F. Courtright, Town Clk., for constructing a water system. Approximate cost, $15,000. Reitze, Storey & Duffy, Engrs., Northern Bank Bldg., Seattle.

★**Seattle, Wash.**—Contract awarded by Bd. of Pub. Wks. for construction of water mains in 38th Ave. S. to N. Fiorito, 616 26th Ave. N., at $16,026.

Portland, Ore.—J. H. Wood, City Purchasing Agent, desires bids until Apr. 15 for supplying city with following water meters: 2 6 in., 1 8 in., 2 10 in., 2 12 in., 1 20 in., 1 24 in., 1 30 in.

Corning, Cal.—Bids reported desired until Apr. 6 by E. S. Randall, City Clk., for $30,000 bonds, the proceeds of which will be used for extension of the water and sewer systems.

Palo Alto, Cal.—Frank Kasson, City Clk., writes that citizens voted Mar. 19 to issue $40,000 bonds for water works improvements, including new mains, etc. J. F. Byxber, Jr., City Engr.

San Bernardino, Cal.—Bids reported desired until Apr. 9 by Water Comrs. for furnishing and laying 4500 ft. 20-in. sheet steel water main; also for furnishing 5500 ft. 12-in. No. 10 U. S. gauge riveted sheet steel water pipe f.o.b. San Bernardino.

San Diego, Cal.—Plans for new reservoir to be built near Mt. Hope Cemetery reported being completed by the Water Dept.

Ogden, Utah.—Bids reported desired until Apr. 13 by City Commissioners for furnishing material and constructing the proposed pipe line from Coldwater canyon to the artesian well in Ogden Valley. The work includes 28,700 ft. trench, including excav., backfilling and hauling, laying and calking pipe and the recoating and testing of 18,400 ft. Matheson joint pipe; 10,300 ft. wood stave pipe, 18,400 ft. 24 in. Matheson joint pipe, and building of a concrete intake at the wells.

Boise, Idaho.—Preliminary plans being prepared by City Engineer for making changes to water works to include about 50,000 ft. of wooden and steel water mains and concrete pipe.

Gooding, Idaho.—It is reported that the Hagerman Valley Water Users' Assoc. (Geo. Hulme, Secy.) will make improvements this spring to include a siphon across Billingsley Creek 800 ft. long, of 20-in. stave pipe.

Sugar City, Idaho.—Fred J. Keath, Village Clerk, writes that it is proposed to construct water works, to cost $15,000. Alfred Ricks, Chmn. Town Bd.

Ottawa, Ont.—The overland pipe scheme has passed Legislature and will be proceeded with at an early date; cost about $360,000. Engineer, R. L. Haycock, City Hall.

Toronto, Ont.—Bids desired until Apr. 13 by T. L. Church (Mayor), Chmn. Bd. Control, for constructing private drains and installing water services throughout City from May 1, 1915, to Mar. 31, 1916.

★**Saanich, B. C.**—It is reported that Balfour, Guthrie & Co., of Seattle, Wash., representing a British firm of cast-iron pipe manufacturers, have secured contract for supplying pipe for new water works, at $139.841 for pipe, and $3,063 for special castings.

Panama—Bids desired until Apr. 18 by Maj. F. C. Boggs, Corps Engrs., U. S. A., Genl. Purchasing Officer, Panama Canal, Washington, D. C., for Circ. 912—C.-i. pipe and fittings, valves, sheet copper, ampere meters, etc.

SEWERAGE AND SEWAGE DISPOSAL.

Items Arranged Geographically

Boston, Mass.—City Council has passed on second reading ordinances as follows: Appropriating $400,000 for future work on separate drainage system connecting with the Charles River Basin; and $600,000 for new sewers.

★**Chicopee, Mass.**—Contract awarded Mar. 26 for sewer pipe for 1915 to Wm. E. Donnelly, of Chicopee Falls, at 77 per cent. off list. John A. Honlihan, Clk., Highway Dept.

Fall River, Mass.—The City Budget as adopted includes a loan of $85,000 for sewers.

New Britain, Conn.—City sewer bonds in the sum of $90,000 reported sold.

Brooklyn, N. Y.—Bids desired until Apr. 9 (readvertisement) by L. H. Pounds, Boro. Pres., for furnishing under Proposition "B" all labor and material required for constructing sewers in Brooklyn and Tompkins Aves. and Fulton St., requiring 2737 lin. ft. 162 in. sewer in tunnel, 818 lin. ft. 126 in. sewer in tunnel, 17 lin. ft. 90 in., 24 lin. ft. 24 in., 12 lin. ft., 15 in. sewer, 200M ft. b.m. foundation planking, 110M ft. b.m. sheeting and bracing, 4000 cu. yds. brick or concrete masonry about sewers in tunnel, 100 bbls. Portland cement, etc. Security $120,000.

Oswego, N. Y.—Citizens voted Mar. 24 to issue $50,000 bonds for sewer extensions.

Buffalo, N. Y.—Bids desired until 3 p. m. Apr. 5 by Bd. Contract and Supply (Isidore Wachsman, Secy.) for constructing sewers in portions of Northern Boule., 2d, Lancaster, Swan, Allen and Boneau Sts.

Port Chester, N. Y.—Bids reported desired until 8 p. m., Apr. 5, for constructing a sewerage system and a sewage disposal plant. Probable cost $100,000. F. S. Odell, Engr., Port Chester; R. L. Burns, City Clk.

Clinton, N. J.—See "Water Works."

Jersey City, N. J.—Bids reported desired until Apr. 8 by City Comrs., for constructing an 18-in. vitr. pipe sewer in Columbia and Germania Aves.

Millville, N. J.—City Comn. reported to have decided to construct a storm sewer, to cost $19,000.

Greenville, Pa.—Bids will be opened Apr. 19 by J. M. Hittle, Boro. Secy., for lateral, terminal and intercepting sewers, 8 to 24 in., and disposal works, advertised in Engineering Record. Chester & Fleming, Engrs., Union Bank Bldg., Pittsburgh.

North Wales, Pa.—Bids desired until 8 P. M., Apr. 5, by Ralph Schafenacker, Boro. Clk., for constructing sanitary sewers in Pennsylvania and 4th Sts. Remington & Vosburg, Engrs., 601 Market St., Camden.

Pennsylvania.—Following are among the permits issued by State Dept. of Health at Harrisburg (Dr. Saml. G. Dixon, Comr.) from Mar. 1 to Mar. 15:

Beaver Falls—Imhoff tanks, disinfection apparatus, pumping station and outfall.

Canonsburg—Outfall sewer, Imhoff tanks and pumping station.

Emsworth — Comprehensive sanitary sewer system.

South Brownsville—Sanitary sewer system and sewage treatment works.

Wilmerding—Lateral sewer extensions.

York—Imhoff tanks and pumping station.

Turtle Creek—Lateral sewer extensions.

South Connellsville, Pa.—Plans being prepared for sewer system, to cost $30,000.

Kensington, Md.—See "Water Works."

Clinton, N. C.—See "Water Works."

Clinton, N. C.—Bids desired until Apr. 28 by A. B. Crumpler, Mayor and Comrs. for approximately 5½ miles 8 to 12 in. vitr. pipe sewers. Wm. M. Piatt, Engr., Durham, N. C.

Southport, N. C.—Bids desired by Henry P. O'Hagan, City Engr., until Apr. 12 for construction of sewer system, to include about 22,000 ft. 8-in. and 2600 ft. 10-in. pipe, average depth 8 ft.; cost about $17,000. Engineers, J. B. McCrary Co., of Atlanta, Ga.

Charleston, S. C.—See "Miscellaneous."

Decatur, Ga.—See "Water Works."

Hawkinsville, Ga.—See "Water Works."

Royston, Ga.—See "Water Works."

Jackson, Tenn.—An enabling act has been introduced in State Legislature empowering city to issue $50,000 bonds to be used for sewer extensions on N. Royal St.

★**Cleveland, O.** — Contract reported awarded Mar. 18, by A. R. Calow, Comr. Purchase & Supplies, for constructing a sewer in Dugway Brook from 800 ft. north of Primrose Ave. northeast to Helena Ave., to Reaugh Const. Co., at $79,903.

Cleveland, O.—Bids desired until Apr. 8 by A. R. Callow, Comr. Purchases and Supplies, for constructing sewers in portions of W. 105th, E. 65th, W. 17th, E. 105th Sts. and Eddy Rd. N. E.

Columbus, O.—Plans for new tank and sludge beds to be installed at sewage disposal plant have been approved by Engineers Geo. A. Fuller, John H. Gregory and Geo. A. Johnson, of New York. The plans were prepared under direction of Clarence W. Hoover, City Chemist.

★**Kent, O.**—Following are 4 lowest bids opened Mar. 15 for constructing sewage disposal plant, from plans of R. T. Bailey, Rockwell Bldg., Kent (using limestone as filter material): (a) D. Lowensohn, Cleveland, $41,358 (awarded contract); (b) Kent Constr. Co., Kent, $41,844; (c) J. C. DeVine, Alliance, $42,755; (d) L. I. Fletcher, Kent, $43,875.

	*(a)	(b)	(c)	(d)
11,000 cu. yds. excavation	$0.50	$0.475	$0.35	$0.55
2,000 cu. yds. rolled embankment	.30	.15	.35	.20
200 cu. yds. filter sand in sludge bed	1.50	1.23	2.50	1.48
220 cu. yds. filter gravel in sludge bed	1.75	1.30	2.50	1.72
3,300 sq. yds. concrete and brick floor in contact filters	1.35	1.71	.90	1.44
400 cu. yds. Class "A" concrete, 1:2:4	15.00	9.97	16.50	13.22
300 cu. yds. Class "B" concrete, 1:2½:5	8.00	5.98	11.00	6.86
508 concrete blocks	150.00	97.97	.20	96.00
240 lin. ft. 8-in. drain, sewer pipe	.50	.20	.40	.39
64 lin. ft. 6-in. drain, sewer pipe	.40	.11	.30	.33
560 lin. ft. 3-in. drain, field tile	.30	.05	.20	.12
120 lin. ft. 15-in. sewer pipe, inlet, complete	.50	.50	.80	.41
120 lin. ft. 18-in. sewer pipe, outlet, complete	.70	.50	1.00	.53
19,000 lbs. reinforcing steel bars	.0375	.035	.06	.042
500 lbs. No. 12 black wire reinforcing	.02	.025	.04	.05
15,700 lbs. steelcrete	.04	.0525	.06	.05
736 sq. ft. ½-in. mesh No. 12 wire reinforcing	25.00	58.88	100.00	36.80
Structural steel, etc. (lump sum)	368.00	308.55	600:00	488.86
Wrought-iron pipe, etc. (lump sum)	307.00	397.74	1,000.00	647.93
12-in. sewer pipe in siphon chamber (lump sum)	10.00	6.00	40.00	8.64
Siphons and feeds, complete (lump sum)	1,700.00	1,685.00	2,500.00	1,700.00
Cast-iron pipe (lump sum)	90.00	125.00	400.00	135.00
Wrought-iron sludge troughs (lump sum)	60.00	75.00	400.00	127.40
Brick building, complete (lump sum)	700.00	397.90	700.00	510.10
10 000 cu. yds. filter material in place, limestone	1.65	1.95	1.60	1.90

★*Items marked thus give the names of parties awarded contracts.*

Dayton, O.—Storm sewer bonds in the sum of $40,300 have been sold.

Marion, O.—Bids desired until Apr. 9 by H. C. Cass, Dir. Pub. Service, for constructing sannitary and storm water sewer in Main and Park Sts., sanitary sewer and storm water drain in Uncanpher Ave., and a trunk line sanitary sewer cellar drain and trunk line storm water sewer in Park, Short and State Sts.

Tiffin, O.—Council reported to be considering construction of River Wall sewer, to cost $39,000.

Toledo, O.—The Sanitary Eng. Dept. of Lucas County is preparing plans for a sewage pumping station to have a maximum capacity of 1000 gals. per minute. It has not yet been definitely decided whether to install ejectors or centrifugal pumps. This station is the first of several that will have to be built in the near future. Wm. H. Gould, County Sanitary Engr.

Crawfordsville, Ind.—See "Paving and Roads."

Detroit, Mich.—Sewer extension in Dexter Boule. from Maidstone to Bancroft at an estimated cost of $13,676., and in Colfax Ave. from Warren Ave. north 6810 ft., to cost $39,282, have been authorized by Council Com. on Sewers.

★**Harbor Beach, Mich.**—Contract awarded by City Comn. Council for sewers to Victor & Peter Sager, of Saginaw, at $28,820.

Ishpeming, Mich.—Richard H. Olds, City Recorder, writes that the proposed sewer work, to cost $30,000, is being done by city under supervision of P. H. Devine, Supt. Bd. Pub. Wks., to include 3,594 ft. 2½ ft. pipe sewers 11 ft. deep and 4104 ft. of laterals. J. Elzey Hayden, City Engr.

Averyville, Ill.—Board of Aldermen has passed ordinance authorizing letting of contracts for sewer system; estimated cost $50,000.

Joliet, Ill.—City Council has adopted ordinance for the 3d Ward sewer; estimated cost $69,470.

Pana, Ill.—Plans reported completed by Bd. Local Improvements for sewage disposal plant.

Madison, Wis.—Bids desired until Apr. 9 by O. S. Norsman, City Clk., for 66,591 ft. 6, 8 and 10 in. vitr. pipe, 14,247 ft. 6, 8, 10, 14, 16 and 18 in. c. i. pipe, 175 manholes for sewers in Fair Oaks Sewer Dist. and in West Lawn addition.

Leon, Ia.—Bids were opened Mar. 18 for the construction of sewers from plans of M. G. Hall, of Centerville:

★Sect. 1—Lateral sewers awarded to Geo. M. King, of Des Moines, at following bid: 11,047 ft. 6-in. vitr pipe sewer, 36 cts.; 31,158 ft. 8-in., 45 cts.; 1600 ft. 10-in., 87 cts.; 84 ft. c. i. pipe sewer, $1; 91 manholes, ea., $35; 19 drop manholes, ea., $50; 20 lampholes, ea., $7.50; 22 flushtanks, ea., $65; total, $25,189. Next 3 lowest bids: C. B. McNamara, Dubuque, $26,195; E. M. Sheflow, Elgin, Ill., $26,311; Henry Rees, Quincy, Ill., $26,729; Engineer's Estimate, $29,734.

★Sect. 2—Disposal plant, awarded to Pickus Eng. & Constr. Co., Sioux City, at following bid: sedimentation tanks and dosing chamber except siphons, $3,300; 1 sludge bed, $200; 2 sand filter beds, $4,422; 900 cu. yds. excav., $405; 1 grit chamber, $207; 1 bulkhead, $25; 4 manholes, 100; 478 ft. 12-in. vitr. pipe, $215.10; total, $8,874. Next 3 lowest bids: C. B. McNamara, Dubuque, $10,000; Dearborn Constr. Co., Waterloo, $10,977; J. W. Turner Improv. Co., Des Moines, $10,994; Engineer's Estimate, $8,669.

★Sect. 3—Outlet sewers, awarded to Geo. M. King, Des Moines, as follows: Outlet No. 1: 1918 ft. 12-in. vitr. pipe 4 to 20 ft. deep, 50 cts. to $1.58, according to depth of trench; 4936 ft. 10-in. 4 to 10 ft. deep, 46 cts. to 64 cts.; 132 ft. 10-in. c. i. pipe, $1.31; 72 ft. 12-in. c. i. pipe, $1.64; 89 ft. piers, $2; 20 cu. yds. concrete, $8; 15 manholes, $35; 2 drop manholes, $50. Outlet No. 3: 3213 ft. 10-in. vitr. pipe 4 to 22 ft. deep, 46 cts. to $2; 552 ft. c. i. pipe, $1.31; 40 ft. piers, $2; 11 manholes, ea., $35; 1 drop manhole, $50; total, $8,707. Next 3 lowest bids: M. Tschirgi, Cedar Rapids, $8,841; Offerman Constr. Co., South Omaha, Neb., $8,923; C. B. McNamara, Dubuque, $9,099; Engineer's Estimate, $7,816.

St. Cloud, Minn.—Bids desired until Apr. 13 by Geo. G. Magnuson, City Clk., for constructing sewers in Sewer Dist. No. 6, requiring 10,063 ft. 8 and 15 in. pipe sewers, 28 manholes and 4 flush tanks.

Belgrade, Mont.—City Council authorized City Engineer to make estimates for sewer system; cost about $15,000.

Judith Gap, Mont.—See "Water Works."

Poplar Bluffs, Mo.—City Council has accepted plans and specifications of E. C. Thomes, City Engr., for a sanitary sewer district, No. 2. Estimated cost of work $19,956, and consists of the following size of pipe: 6, 8, 12 in. and one ejector station. Contract will be let in about two months.

Ashdown, Ark.—See "Water Works."

Little Rock, Ark.—Bids desired by Comrs. of Sewer. Dist. No. 78 until Apr. 24 for construction of approximately 17,700 lin. ft. storm and sanitary sewers. Ford & MacCrea, Engrs. for Dist.

★**Brenham, Tex.**—Contract reported awarded to F. W. Wood, of Brenham, for about 10,000 lin. ft. sewer pipe.

Ferris, Tex.—Citizens reported to have voted to issue $16,000 bonds for construction of a sewer system.

Seattle, Wash.—The City Council has authorized Bd. of Pub. Works to construct emergency overflow sewers from existing north trunk sewer system into Lake Washington Canal near 1st Ave. N., 2d Ave. N. W. and 3d Ave. W.

★**Seattle, Wash.**—Contract awarded by Bd. of Pub. Wks. for construction of sewers in Lakeside Ave. to Thos. Scalzo, 1708 22d Ave. S., at $23,959.

Spokane, Wash.—Bids desired until 11 A. M., Apr. 8, by F. K. McBroom, Comr. Pub. Wks., for constructing sewers in Sprague, 2d and 5th Aves., in connection with street changes.

★**Enterprise, Ore.**—Contract was awarded for construction of sewers (bids opened Mar. 22) to J. H. Childs, La Grande, at $14,958. Next 3 lowest bids: Geo. Gordon, Portlandt, Ore., $15,412; H. L. Wilson Co., Walla Walla, Wash., $16,472; Jas. Kennedy, Portland, $16,853. W. F. Savage, City Recorder.

Corning, Cal.—See "Water Works."

Marysville, Cal.—An election will soon be held to vote on issuing $18,000 bonds for extending the drainage sewer and making other improvements in the Ellis Lake Dist.

★**San Diego, Cal.**—Allen H. Wright, City Clk., writes that contract for constructing Ocean Beach sewer has been awarded to A. C. Hose, at $49,300.

Lewiston, Idaho.—R. A. Bonnell, City Engr., writes bids are desired about May 1 for constructing sewers in Sewer Dist. No. 6, about 11,700 ft. 6 to 12 in. vit. pipe sewer, 7½ ft. deep; cost about $10,500.

Lewiston, Idaho.—C. F. Leland, City Clk., writes a new sewer district about to be formed, to consist of 5175 ft. 6, 8, 10 and 12-in. pipe sewers; cost $10,636. R. A. Bonnell, City Engr.

Parma, Idaho.—It is reported that 5000 lin. ft. of sanitary sewers will be constructed in this city this spring and summer.

Westmount, Que.—Bids desired until Apr. 5 by the City Council for the following supplies for the year commencing May 1, 1915: Cement, sand, quarried stone, crushed stone, paving blocks, sewer pipes, bricks, farm tile. P. E. Jarman, City Engr.

Hamilton, Ont.—Bids desired until Apr. 6 by S. H. Kent, City Clk., for 2155 ft. reinforced concrete pipe, 2 ft. 6 in., 3 ft. 3 in., 4 ft. 3 in. and 4 ft. 6 in. in diam, for construction of sewer in Gertrude St. and 770 ft. 2 ft. 6 in. reinforced concrete pipe for sewer in Burlington St. A. F. Macallum, City Engr.

Toronto, Ont.—See "Waterworks."

BRIDGES.

Items Arranged Geographically

Lee, Mass.—The Town Council voted $10,000 for constructing bridge at Pleasant St.

Woonsocket, R. I.—See "Paving and Roads."

Gloversville, N. Y.—It is proposed to construct a reinforced concrete bridge, 50 ft. long, with 15-ft. span. H. J. Hanmer, City Engr.

Troy, N. Y.—Bids desired until Apr. 6 by Bd. Contract and Supply (John J. McLaughlin, Secy.), for furnishing material and constructing an ornamental approach at People's Ave. and 12th St., requiring 1200 cu. yds. earth and rock excavation, 180 cu. yds. first-class concrete, 1900 sq. ft. concrete sidewalk, 2000 lbs. twisted iron reinforcement, 4 ornamental bronze standards, etc.

New Brunswick, N. J.—Bids desired until Apr. 5 by A. J. Gebhart, Dir., for building a concrete and steel bridge.

Easton, Md.—Bids desired until Apr. 13 by County Comrs. (Jos. B. Harrington, Clk.) for constructing concrete bridge on Tunis Mills Road, known as Leeds Creek Bridge, advertised in Engineering Record. Frank W. Seth, Co. Roads Engr.

Stuart, Va—Bids desired by County Clerk until 12 o'clock noon, Apr. 5, for construction of steel bridge 100 ft. long over Mayo River.

Smithfield, W. Va.—Bids reported desired until Apr. 6 by S. Myers, Clk. County Court, New Martinsville, for constructing a concrete or steel bridge with concrete floor across Fallen Timber Run about 1 mile from Smithfield.

Durham, N. C.—Bids reported desired until Apr. 6 by County Auditor for 4 steel bridges with concrete substructures. Total cost $20,000.

Sumter, S. C.—About $10,000 bonds have been sold by Sumter County Bd.

Goshen, Ala.—Bids reported desired until Apr. 21 by Co. Comn. at Troy for constructing a steel concrete bridge over Conecuh River at Smiley's Crossing, near Goshen. W. S. Keller, State Highway Engr., Montgomery.

Zachary, La.—Bids reported desired until Apr. 13 by Police Jury at Baton Rouge for constructing a steel bridge over Baton Rouge Bayou, 5 miles east of Zachary, to have one 60 ft. span and 24 ft. wooden approach.

Tupelo, Miss.—Bids reported desired until Apr. 5 by County Clerk for furnishing one car steel I beams and channels and furnishing and erecting 60 ft. span steel bridge. L. G. Smith, Engr., Tupelo.

Belleville, O.—Local press reports state bids desired until Apr. 5 at office of David O. Thomas, Co. Supt. Highways, for constructing the Smithton Bridge. The structure will be of reinforced concrete, span 40 ft., width 20 ft. Probable cost $2,500.

Cambridge, O.—Bids desired until Apr. 6 by T. C. White, Co. Aud., Cambridge, for $27,000 bonds, issue for the purpose of constructing a bridge across Wills Creek on the Public Highway in city of Cambridge.

Canton, O.—Bids reported desired until Apr. 14 by County Commissioners (C. L. Stoner, Clk.), for constructing the James Steele reinforced concrete bridge over Pigeon Run, Tuscarawas Township.

Cincinnati, O.—Bids reported desired until Apr. 14 by Wm. Leimann, City Aud., for $165,000 bonds, issued for the purpose of constructing a viaduct over Kemper Lane at Park Ave. entrance to Eden Park.

Circleville, O.—Bids desired by Fred R. Nicholas, Co. Aud., until 12 M. Apr. 26 for rebuilding Nile's embankment, west end of Red bridge over Scioto River. Estimated quantities: 38,280 cu. yds. earth fill, 1200 cu. yds. gravel.

Eaton, O.—Bids desired until Apr. 10 at office of G. W. Rehfuss, Co. Aud., for $30,000 bonds, issued for the purpose of erecting a bridge over Twin Creek, Harrison Township, and Paint Creek, Somers Township.

Crown Point, Ind.—Bids reported desired until Apr. 8 by County Comrs., for constructing a tubular bridge with steel iron top, with 4 8-ft. wings over Plum Creek near Dinwiddie Station, Eagle Creek Township.

Danville, Ind.—Bids reported desired until Apr. 19 by County Commissioners, for constructing 7 steel and 9 concrete bridges. L. W. Borders, Co. Aud.

Evansville, Ind.—Bids desired until Apr. 9 by Co. Comrs. for constructing various reinforced concrete and steel bridges with concrete abutments. C. P. Beard, Co. Aud.

★**Indianapolis, Ind.**—Contract for constructing steel girder bridge over Little Eagle Creek awarded by Bd. County Comrs. to Central States Bridge Co., Indianapolis, at $5,395.

Indianapolis, Ind.—See "Railroads."

Scottsburg, Ind.—Bids reported desired until 1 p m., Apr. 5 by County Commissioners for constructing several concrete bridges and culverts and 2 steel bridges. Robt. Blunt, Co. Aud.

Jackson, Mich.—Bids reported desired until Apr. 6 by City Clk. for constructing a bridge over Grand River, steel or concrete.

Windom, Minn.—Bids desired until Apr. 15 by S. A. Brown, Co. Aud., for corrugated iron culvert, sizes ranging from 12 to 36 in. in diam.

Kansas.—Bids opened by W. S. Gerhart, State Engr., Manhattan, for bridge work in Harvey and Cloud Counties as follows:

★Harvey County (bids opened Mar. 22), for two reinforced concrete bridges, one a 30-ft. span, 16-ft. roadway, 5 miles south of Halstead, and a 50-ft. span, 16-ft. roadway, 9 miles east of Buhler, awarded to Heaney Constr. Co., Enid, Okla., $5,100. Next 3 lowest bids: Noller & Compan, McFarland, Kan., $5,760; Ben Northcott, Hesston, Kan., $5,808; Missouri Valley Bridge & Iron Co., Wichita, $5,850. The two structures contain a total of 34,581 lbs. steel reinforcing bars, 105.6 cu. yds. plain concrete, and 254 cu. yds. reinforced concrete; or a total of 359.6 cu. yds. Contract price per cu. yd. of concrete, including everything complete in place, is $14.20.

★Cloud County (bids opened Mar. 24), 5 reinforced concrete bridge, one a 16-ft. span, 18-ft. roadway, west of Aurora; two 32-ft. spans, 18-ft. roadway, west of Concordia; a 20-ft. span, 18-ft. roadway, southeast of Concordia; a 20-ft. span, 18-ft. roadway, 2 miles south of Clyde, and a 24-ft. span, 18-ft. roadway, 5 miles north of Glasco, awarded to Western Bridge Co., Harrisonville, Mo., at $9,667. Next 3 lowest bidders: Canton Bridge Co., Kansas City, Mo., $11,000; Scott Bros., Concordia, Kan., $11,367; W. C. Noller, McFarland, Kan., $11,850. The five structures contain a total of 51,850 lbs. of steel reinforcing bars, 413.5 cu. yds. plain concrete and 525.1 cu. yds. reinforced concrete; or a total of 938.6 cu. yds. Contract price per cu. yd. of concrete, including everything complete, is $10.30.

★**Newton, Kan.**—Contract awarded Mar. 22, for constructing reinforced concrete superstructure and substructures of Peter Reiger Bridge, to Heaney Constr. Co., Enid, Okla., span 50 ft. and Kissoway bridge; span 30 ft.; estimated cost $5,500. C. A. Young, Co. Clk.

★**Kearney, Neb.**—Contract awarded Mar. 26, for bridge and bridge repair work during ensuing year, to Omaha Steel Wks., Omaha, J. H. Dean, Co. Clk.

★**Billings, Mont.**—Following are 4 lowest bids opened Mar. 20, by County Comrs., for constructing 2 highway bridges over Yellowstone River: (a) Duck Creek bridge 3 spans 152 ft. each, designed for wood floors with cotton wood floors (complete); (b) Pempeys Pillar bridge, 3 spans, 190 ft. designed for concrete floors but with cotton wood floor installed complete: Security Bridge Co., Billings (awarded contract on both bridges) (a) $31,950, (b) $43,920; Minneapolis Steel & Mchry Co., Minneapolis Steel & Mchry. Co., Minneapolis, (a) $32,970; Minneapolis Bridge Co., Minneapolis, Minn., $33,000; (b) $45,700; J. J. Burke, Salt Lake City, Utah, (a) $33,650; Kansas City Bridge Co., Kansas City, Mo., (b) $45,750; U. S. Bridge Co., (b) $46,163.

Boulder, Mont.—Bids desired until 10 A. M., Apr. 6, by H. R. Houghton, Co. Clk., for one car load of metal culvert pipe, 50 12-in., 25 18-in., 20 24-in. and 6 30-in.

Columbus, Mont.—Bids reported desired until Apr. 12 by R. W. Barr, County Aud., for 5 bridges as follows: One 22 ft., one 30 ft., one 60 ft., one 55 ft. and one 95 ft.

Stillwater, Mont.—Bids desired until Apr. 12 by County Comrs. (B. F. Harris, Chmn.) at Stillwater, Mont. (not Stillwater, Minn., as recently reported), for constructing bridges as follows: Skew Bridge, Shane Creek, 22 ft.; Butcher Creek, at Campbell Pl., 30 ft.; East Rosebud, 60 ft.; West Rosebud, 55 ft.; Absarokee, Rosebud River, riveted span, 95 ft.

St. Joseph, Mo.—Fred W. Lander, Secy. Bd. Pub Wks., writes that the construction of 2 viaducts in contemplation. No plans as yet.

St. Louis, Mo.—Bids desired until Apr. 9 by Wm. T Findly, Secy. Bd. Pub. Service, St. Louis, for furnishing and driving 15,000 lin. ft. reinforced concrete piling for 7th Sect. of the Municipal Bridge in East St. Louis, Ill.

Osceola, Ark.—See "Hydraulic Construction and River Improvements."

Robert Lee, Tex.—Bids reported desired until Apr. 12 by County Comrs. Court. for constructing 2 bridges. Probable cost $8,000. S. B. Kemp, Co. Judge.

Chandler, Okla.—Bids desired until Apr. 5 by J. C. Pringsy, Co. Clk., for constructing 3 steel bridges across main channel of Deep Fork Drainage Ditch.

Malaga, Wash.—Plans are being prepared by Great Northern Ry. Co. (A. H. Hogeland, Ch. Engr., St. Paul, Minn.) for steel and concrete bridge to be constructed over Columbia River near Malaga; cost about $300,000.

Olympia, Wash.—City Engineer has been directed to prepare plans for reconstructing W. 4th St. bridge, to be of steel, and cost about $20,000.

The draw-bridge connecting East and West Olympia is reported destroyed.

Seattle, Wash.—Bids will be received about May 15 according to reports for constructing bridges over Lake Washington Canal at 15th Ave. n. w., and Salmon Bay; total cost $479,500, and at Fremont, cost $350,000.

Martinez, Cal.—Contra Costa and San Joaquin Counties have authorized construction of steel and concrete bridge over Old River; cost about $120,000. Bids wil be received in May.

Santa Ana, Cal.—Bids reported desired until Apr. 7 by Bd. Superv. for constructing a 60-ft. plate girder bridge reinforced concrete floor and abutments over Coyote Creek.

Stockton, Cal.—Plans have been completed by Frank E. Quail, County Surveyor, for constructing steel and concrete bridge in Stockton; cost about $125,000.

Utah.—The State House, at Salt Lake City, passed bills providing for appropriations for bridges as follows: $6,000 bridge Price River, $5,000 for bridge over Clara Creek in Washington County.

★**Challis, Idaho.**—Contract awarded Mar. 17, for constructing steel bridge in Custer County, to J. N. Forbes & Co., Caldwell, at $31,367. E. J. Michael, Clk. Bd. Comrs.

Bala, Ont.—Bids desired until Apr. 10 by A. L. Hertberg, Div. Engr., Canadian Pacific Ry. Co., Ontario Div., Toronto. Ont., for construction of 4 concrete piers and 2 concrete abutments at bridge 107.2, Muskoka Subdivision over Shaw's Creek, about 7½ miles south of Bala.

PAVING AND ROADS.

Items Arranged Geographically

Lee, Mass.—The Town Bd. voted $10,000 appropriation for macadamizing Columbia Rd.

★*Items marked thus give the names of parties awarded contracts.*

Massachusetts.—Bids desired until Apr. 6 at 12 M. by Massachusetts Highway Comn., 15 Ashburton Pl., Boston (F. I. Bieler, Secy.) for following state highways:

Duxbury, oil and tar, macadam, 10,200 ft. long.

Grafton, tar macadam, 3800 ft.

Gloucester, oil gravel and macadam, 5208 ft.

Massachusetts—There is a bill before State Legislature (not yet passed) providing $2,000,000 for constructing highways in several small towns located largely in the western part of the State.

Appropriation for new state highways and for construction of so-called small town roads this year is $1,000,000. This appropriation is divided as follows, $50,000 for construction of town roads in towns under $1,000,000 valuation where towns do not contribute; $50,000 for similar towns where towns contribute an equal amount; $50,000 for towns having a valuation of $1,000,000, said towns being required to contribute an equal amount. The balance, $850,000, is available for State highway construction, including cost of engineering.

For maintenance, widening and resurfacing of State highways, there is available an appropriation of $350,000, together with receipts from motor vehicle registration and operator's licenses, which will amount to approximately $1,000,000. A. W. Dean, Ch. Engr. Massachusetts Highway Comn., 15 Ashburton Pl., Boston.

Woonsocket, R. I.—According to the annual estimate of Geo. W. Rickard, City Aud. the work on highways and bridges will approximate about $310,000. Frank H. Mills, City Engr.

Hartford, Conn.—Bids desired until Apr. 13 by Bd. Contract and Supply (Jos. Buths, Secy.) for about 20,260 sq. yds. sheet asphalt pavement, concrete base, advertised in Engineering Record.

★**Meriden, Conn.**—Contract was awarded Mar. 23 by Bd. Public Works for paving as follows: Wood block pavt. on State St., about 9239 yds., to L. Seizio, of Meriden, at $29,169. Other bids: Wm. H. Arthur, Stamford, $29,540; H. L. & W. L. Inimich, Meriden $31,388.

★Contract for brick pavt. on State St., about 2570 sq. yds., was awarded to Thos. Kearney, of Meriden, at $8,388. W. S. Clerk, City Engr.

Norwich, Conn.—About $30,000 is to be spent for constructing sidewalks in Norwich, according to reports.

Albany, N. Y.—Bids desired until Apr. 20 by State Highway Comn., 55 Lancaster St., Albany, for constructing State Highways, advertised in Engineering Record. Edwin Duffey, Comr. Highways.

Auburn, N. Y.—Bids desired until Apr. 6 by Chas. W. Brister, Mayor, for paving Ave. A, Chapel and Franklin Sts., requiring approximately 10,334 sq. yds. vitr. Brick, asphalt or bitulithic pavement, 2885 sq. yds. pavement, etc. Elbert C. Aldrich, City Engr.

Brooklyn, N. Y.—Bids desired until Apr. 7 by L. H. Pounds, Boro. Pres., for regulating and paving with asphalt, portions of Howard and Snediker Aves., Appol, E. 26th, Erasmus, President, W. 19th and 50th Sts., in all 27,615 sq. yds. pavement etc.; regulating, grading, curbing and laying cement sidewalks on portions of Atkins Ave., 59th, 83d, E. 31st and 90th Sts., in all 38,160 sq. ft. sidewalk, etc.

Buffalo, N. Y.—Bids desired until 3 P. M. Apr. 5 by Bd. Contract and Supply (Isidore Wachsman, Secy.), for repaving Eagle and James Sts. and improving portions of Spring, Osborne and several other streets. Bids desired on redressed granite blocks, vitr. shale block, asphaltic concrete, vitr. brick and concrete walks, etc.

★Common Council voted to award contracts for pavements as follows: Kensington Ave. asphalt $13,316, Delavan Ave. asphalt $30,538, Northampton St. asphalt at $10,330, and York St. at $25,849 to Henry J. Burgard Co., Fillmore Ave.; Gorton St. with asphalt to German Rock Asphalt & Cement Co., D. S. Morgan Bldg., at $19,180.

Gloversville, N. Y.—It is proposed to lay 10,000 sq. yds. concrete pavement and 1200 sq. yds. brick on old macadam. H. J. Hanmer, City Engr.

Long Island City, L. I., N. Y.—Bids desired until Apr. 7 by Maurice E. Connolly, Boro. Pres., for cement sidewalks on Hancock, Decatur, Anable, Sophie and other streets, in all about 71,800 sq. ft.; flag sidewalks on Borden Ave. and Anable St., 8200 sq. ft.; sheet asphalt on Putnam Ave., 2800 sq. yds.; granite block in Thomson Ave. and College Point Causeway, in all 16,000 sq. yds., and 3200 sq. yds. asphalt block on Hopkins Ave.

New York, N. Y.—Following are the bids opened by Park Board Mar. 25, for furnishing material and surfacing with asphaltic concrete the City Island Road from Eastern Boulevard to City Island bridge in Pelham Bay Park, Boro. Bronx, (a) 16,790 sq. yd., (b) totals: Asphalt Const. Co., 208 Bway., (a) $1.18, (b) $19,812; Barber Asphalt Paving Co., 233 Bway., (a) $1.64, (b) $27,536; Municipal Asphalt Co., 1451 Bway., (a) $1.14, (b) $19,141; Sicilian Asphalt Paving Co., 41 Park Row, (a) $1.50, (b) $25,185; Uvalde Asphalt Paving Co., 1 Bway., (a) $1.40, (b) $23,506

Bids desired until Apr. 13 by Bd. Water Supply, Municipal Bldg., New York, for Contract 152—surfacing with vitr. brick blocks and macadam about 5 miles of highways and constructing about 8 miles of guard walls at the Ashokan Reservoir, in town of Olive, Marbletown and Hurley, Ulster County.

★Contract awarded by F. J. H. Kracke. Comr. Bridges, for furnishing granite paving blocks for Williamsburg Bridge (bids opened Mar. 25) to Booth Bros. & Hurricane Isle Granite Co., 208 Bway., New York, at $2,122.

Oswego, N. Y.—Bids desired until Apr. 9 by Department of Works (Chas. W. Linsley, Comr.) for 4000 sq. yds. vitr. brick pavement, advertised in Engineering Record.

Camden, N. J.—Bids reported desired until Apr. 12 by E. E. Stafford, Chmn. Co. Road Com., for resurfacing with amiesite a portion of King's highway; also for road oil. J. J. Albertson, Co. Engr.

Cape May, N. J.—About $20,000 Cape May County Road improvement bonds have been sold.

★**Highlands, N. J.**—Contract reported awarded by Bd. Chosen Freeholders, at Freehold, to Chas. E. Burd, of Red Bank, for paving Bay Ave., at about $10,530.

South Orange, N. J.—Bids desired until Apr. 6 by Township Com., Township of South Orange, for furnishing approximately 40,000 gals. of road oil, f. o. b. South Orange.

Connellsville, Pa.—Bids desired until 8 p. m. Apr. 5 by John L. Gans, Purchasing Agt., for grading, curbing and paving certain streets, or parts thereof; also new sewers or extensions of existing lines within the city of Connellsville.

Darby, Pa.—Bids desired until Apr. 5 by this Boro. for $30,000 bonds; proceeds will be used for street improvements. H. Malin Green, Chmn. Finance Com.

Kingston, P. O. Wilkesbarre, Pa.—J. Kelly, 446 Hoyt St., Kingston Station, writes bids are desired May 1 for paving Grove Ave. and Cooper St., Pringle Boro.; cost, about $10,000. Engineers, Smith & Wells, of Wilkesbarre.

Sharon Hill, Pa.—Bids desired until Apr. 7 by Wm. S. Atchison, Boro. Secy., for resurfacing and treating the streets with bituminous binder. A. F. Damon, Jr., Boro. Engr., Darby.

Sharpsburg, Pa.—Bids desired until Apr. 12 by J. F. Barry, Boro. Clk., for 1113 N. Canal St., for grading, repairing and recurbing Main St., paving to be of block brick, curbing new protected concrete curb, or for redressing and resetting of old curb, grading, curbing and paving 3d, 4th, 16th and S. Canal Sts. and resurfacing Middle and Penn Sts. with amiesite, warrenite, asphalt, tarvia or any other good material.

★**Uniontown, Pa.**—Following are the successful bids opened by County Comrs. Mar. 16 for constructing tarvia waterbound macadam roads: (a) for penetration method and (b) for machine mixed: 10,560 ft. road in North Union Township: Regan-Lynch Co., Uniontown, (a) $29,699, (b) $34,298; 5280 ft. road in Franklin Township, Crossan Constr. Co., Brownsville, (a) $27,281, (b) $29,059, and 5280 ft. road in Perry Township to Jack Austin, Uniontown, $18,721.

Easton, Md.—Bids desired until Apr. 13 by County Comrs., Easton (Jos. B. Harrington, Clk.), for constructing a section of State Aid highway in Talbot County along Tunis Mills Rd., about 1.57 miles. Frank W. Seth, County Roads Engr.

Maryland.—Bids desired until Apr. 13 by State Roads Comn., Garrett Bldg., Baltimore (Wm. L. Marcy, Secy.), for constructing State Highway, aggregating 6.18 miles in length, as follows: Contr. No. AB-8-Baltimore City, sections of Maryland Ave., Russell, Bush and Ridgeley Sts., about .83 mile in length (brick, sheet asphalt and granite block). Contr. No. BC-3A-Baltimore City, section of Frederick Ave. over Gwynn's Falls Bridge, about .24 mile in length (vitrified brick paving). Contr. No. 0162B-Garrett County, a section of road from Thayerville toward McHenry, about 3.73 miles in length (resurfacing). Contr. No. CE-18-Cecil County, a section of road through Elkton, about 1.38 miles in length (concrete or macadam).

Fairfax, Va.—Bids desired by County Clerk, until 11 a. m., Apr. 7, for 6½ miles of road between Vienna and Langley; alternate bids on gravel and water-bound macadam surface, and 3 miles of road between Tysons Corner and West Falls Church, waterbound macadam surface, and alternate bids on gravel base and waterbound macadam surface.

Lexington, Va.—Bids desired by County Clerk until noon, Apr. 5, for construction of about 2½ miles of macadam road between Lexington Dist., at Leibigs Gate, and Buena Vista Pike, in Rockbridge County,

Charleston, W. Va.—Bids reported desired until Apr. 10 by C. L. Massey, Co. Clk., for constructing 17½ miles hard surfaced road A. D. Williams, Ch Rd. Engr.

★**Fairmont, W. Va.**—Contract for paving between tracks and 2 ft. outside of tracks of Monongahela Valley Traction Co. awarded to Cisler & Morse, Marietta, O., at about $90,000.

Pittsboro, N. C.—Citizens Center Township voted $50,000 bonds for constructing roads.

Benson, N. C.—About $50,000 road improvement bonds have been sold by Bd. Road Trus., Banner Township.

Taylorsville, N. C.—Citizens of Alexander County voted $150,000 bonds for road improvements.

Charleston, S. C.—See "Miscellaneous."

Chester, S. C.—About $18,000 is to be spent by Chester County for road and bridge improvements.

Columbia, S. C.—Bids desired until Apr. 6 by John McNeal, City Engr., for furnishing either a 20 h. p. double cylinder steam traction engine or a 20-40 h. p. or a 46-60 h. p. gasoline or oil traction engine; also a horse or tractor road grading machine.

Cartersville, Ga.—W. W. Daniels, City Engr., is preparing plans for paving Main St. with either vitr. brick or wood block.

★**Waycross, Ga.**—Contract for paving about 11,000 sq. yds. with brick Carswell Ave. awarded by City Council to Georgia Engineering Co., Augusta, at 98½ cts. per sq. yd.

Jacksonville, Fla.—Bids desired until Apr. 8 by County Comrs. for hardsurfacing with vitr. brick, asphalt macadam or other suitable material, including curbing, each of the roads or parts of roads as follows: John Anderson Highway, 21,946 ft. long, 15 ft. wide; National Highway, 75,429 ft. long, 15 ft. wide; Kings Rd., 21,120 ft. long, 15 ft. wide; Tallerand Ave., 10,104 ft. long, 20 ft. wide; Fisher St., 3932 ft. long, 20 ft. wide; Yukon Rd., about 2 miles long, 15 ft. wide; Eastport Rd., about 3½ miles long, 15 ft. wide; Black Creek Rd., 3 miles long, 15 ft. wide; 28th St., 2594 ft. long, 20 ft. wide; John Anderson Highway, about 3 miles long, 15 ft. wide; also the following roads, now paved with shell, are to be resurfaced with asphalt macadam or some other permanent hard surface, as follows: John Anderson Highway, 3422 ft. long, 20 ft. wide; 2 sections of Atlantic Boule., 2912 ft. and 12,960 ft. long, 20 ft. wide; 2 sections of King's Rd., 7667 ft. and 10,771 ft. long, 20 and 15 wide, respectively; Lem Turner Rd., 18,925 ft. long, 15 ft. wide; 102d St., 19,000 ft. long, 15 ft. wide; Orange Park Rd., 19,370 ft. long, 15 ft. wide; Moncreif Rd., 1.6 miles long, 15 ft. wide; Main St., 7252 ft. long, 20 ft. wide; Fernandina Rd., 36,960 ft. long, 15 ft. wide; Evergreen Ave., 5076 ft. long, 15 ft. wide; Pearl St., 769 ft. long, 20 ft. wide; Durkee (or Myrtle) Ave., 2500 ft. long, 20 ft. wide.

Sanford, Fla.—Bids desired until Apr. 19 by M. W. Lovell, City Clk., for No. 1 paving brick, about 3100 sq. yds. Fred T. Williams, City Engr.

★**Birmingham, Ala.**—Contract awarded by Bd. City Comrs., on Mar. 23 to Birmingham Paving Co., Birmingham, for paving 10th Ave. S. at an estimated cost of $8,000; work includes 4750 sq. yds. asphalt concrete on 5-in. concrete foundation 130 sq. yds. smooth finish concrete gutters, and 250 sq. yds. cement sidewalk.

Hamilton, Ala.—Bids reported desired until Apr. 13 by County Comrs. for constructing State Aid Road; amount available $4608.

Louisiana.—Bids desired until Apr. 10 by Highway Dept., Bd. State Engrs. (Frank M. Kerr, Ch. Engr.), New Orleans Court Bldg., New Orleans, for construction, with gravel, Sec. No. 2, Arkansas Highway, Caddo Parish, a distance of about 3 miles.

★**Columbus, Miss.** — Contract awarded Mar. 22 for constructing 22 miles road in Dist. No. 2 to R. C. Searcy & Co., Houston, at $17,405. Next 3 lowest bids: Owen Constr. Co., Brooksville, $19,812; T. M. Thornton, Hattiesburg, $24,467; F. D. Harvey & Co., Memphis, Tenn., $24,768. Gus E. Hauser, Engr., Columbus.

Maryville, Tenn.—Bids desired until 1 P. M. Apr. 6 by County Court (R. P. McReynolds, Chmn.) for $100,000 pike bonds.

Nashville, Tenn.—Bids desired by J. W. Dashiell, Secy. Bd. City Comrs., until Apr. 13 for the purchase of $430,000 bonds for improving streets. If bonds are sold bids will be received Apr. 29 for the construction of certain wood block paving, bitulithic, granite block, concrete and bituminous macadam. H. E. House, Mayor.

Lexington, Ky.—The General Assembly passed bill authorizing Davidson County to issue $300,000 bonds for constructing roads.

Louisville, Ky.—Bids desired until Apr. 8 by J. T. Miller, Co. Aud., for constructing 3 miles of gravel road.

Bowling Green, O.—Bids desired until Apr. 12 by W. A. Mariner, Dir. Pub. Service, for grading, curbing and paving Ordway, Ada and Evers Aves., in all 6350 sq. yds. pavings, etc.

Canal Dover, O.—Bids desired until Apr. 14 for paving Iron Ave. and Slingluff Ave. Wm. E. Sykes, Clk., Service Dept. Geo. E. Arnold, City Engr.

About $38,500 bonds have been sold by city for street improvements.

Canal Dover, O.—Bids desired until Apr. 14 by Osmond Salman, Dir. Pub. Service, for paving with brick on Slingluff and Iron Aves. and constructing stone or cement curbs

Cincinnati, O.—Bids desired until Apr. 23 by Co. Comrs., Cincinnati (Albert Reinhardt, Clk.) for following work: Specification No. 720—improving Hunt Road, with macadam and rebuilding 2 bridges in Sycamore Township.

★Contract was awarded Mar. 15, for paving Orland Ave., with brick, to Kirchner Constr. Co., Cincinnati, at $11,364.

★Contract for paving Orland Ave. awarded by Bd. Public Service to Kirchner Contr. Co., 221 W. 9th St., at $11,364.

Cleveland, O.—Bids desired until Apr. 9 by A. R. Callow, Commissioner Purchases and Supplies, for road oil for the Division of Parks.

Bids desired until Apr. 7 same place as above for grading, curbing and paving with brick Woodworth Ave.

★**Cleveland Heights, O.**—Contract has been awarded for paving with brick Exeter and E. Manmouth Roads, to Geo. B. Herring & Son, of Cleveland.

Columbus, O.—Plans have been prepared by City Engineer for paving with asphalt E. Broad St.; estimated cost $10,218.

Coshocton, O.—Bids desired until Apr. 15 by Elmer Smith, Dir. Pub. Service, for paving with brick 3d, 5th and E. Main Sts., in all 13,545 sq. yds.; also constructing and 8-in. sewer in 5th St.

Defiance, O.—Bids reported desired until Apr. 5 by Roger Daquist, City Clk., for macadamizing Power Rd. No. 5, Defiance Township. Length of road, 5300 ft.; width of pavement, 12 ft. Cost, $4,925.

Greenford, O.—Bids reported desired until Apr. 7 by Trustees of Green Township (Geo. R. Crutchley, Chmn.), for improving various roads with macadam, with or without glutrin treatment.

Mansfield, O.—Lowest bid opened by County Comrs. for constructing Amoy Rd., 6.43 miles long, and new State Rd., 4.38 miles long, submitted by Harry V. Moore, at $36,713 and $24,713, respectively.

Marble Cliff, O.—Bids desired until Apr. 26 by C. Newhouse, Village Clk., for improving Cambridge Pl. Ave. by paving with macadam and constructing curbs.

Marion, O.—Bids desired until Apr. 9 by H. C. Cass, Dir. Pub. Service, for paving Windsor St., Girard and Marion Aves.

Martins Ferry, O.—Bids desired until 12 M. Apr. 5 by Brock Brown, Dir. Pub. Service, for paving with hard burned vitr. brick or block a portion of S. 8th St.

Mt. Gilead, O.—Contract awarded Mar. 15 by County Comrs. for furnishing material and constructing 2 macadamized roads, one Benton Rd., South Bloomfield Township, about 3 6/10 miles, and Blackbird Rd., Gilead and Harmony Townships, about 7 miles, to Henry Ault & Son, of Cardington, at $46,983. C. O. Higgins, Co. Aud.

Nova, O.—Bids desired until Apr. 16 by Bd. Trus. of Troy Township at the office of J. W. Davidson, Township Clk., for furnishing material and constructing a bituminous bound macadam pavt. on 3 1/3 miles of road in said township. R. T. Scantlebury, Co. Surv., Ashland.

Painesville, O.—Bids reported desired until Apr. 12 by County Comrs., for $17,000 road improvement bonds. W. Albert Davis, Co. Aud.

Plymouth, O.—Bids reported desired until Apr. 6 by W. A. Jeffrey, Village Clk., for $11,900 Sandusky St. improvement bonds.

Tiffin, O.—Bids desired until Apr. 10 by County Commissioners for paving with concrete a portion of Morrison Rd., Eden Township. J. E. Hershberger, Co. Aud.

Toledo, O.—Bids desired until Apr. 14 by County Commissioners for furnishing material, grading, draining and macadamizing with a bituminous binder, Copland Boule., also known as Stone Road Improvement No. 53, Adams Township. Chas. J. Sanzenbacher, Co. Aud.

Uhrichsville, O.—About $20,000 paving bonds have been sold by town.

Wadsworth, O.—Bids desired until Apr. 15 by J. B. Hilliard, Clk., Wadsworth Township, at Wadsworth, for $17,000 road improvement bonds.

Wellington, O.—Bids reported desired until Apr. 5 by Trustees of Penfield Township (Ira M. Starr, Clk.), for $12,000 road improvement bonds.

Youngstown, O.—Bids desired until Apr. 12 by Road Comrs., Dist. No. 1 (Frank Agnew, Secy.) for $66,000 bonds, issued for the purpose of constructing and improving roads in said district.

★**Angola, Ind.**—Contract awarded Mar. 10, for paving E. Maumee St. with asphalt block to Brooks Constr. Co., Ft. Wayne. C. F. Power, City Engr.

Boonville, Ind.—Citizens of Greer Township voted to construct 7 miles macadam road at cost of $27,000.

★*Items marked thus give the names of parties awarded contracts.*

Crawfordsville, Ind.—City Engineer J. A. Cragwell has completed estimate on 3 of the sidewalks to be laid during coming spring; the total length is about 1 mile, and cost will be $11,300; estimate for the new W. Main St. sewer, if placed, at $8,000.

Evansville, Ind.—About $12,000 county road improvement bonds have been sold.

Bids for improving 15 streets will be received about Apr. 15. E. H. Frisse, Clk. Bd. Pub. Wks.

Gary, Ind.—Petition has been received by Bd. Pub. Wks. for macadam pavement on 27th Ave., from Bway. to Harrison, 7000 sq. yds.

Bids desired by H. C. Francis, City Clk., until Apr. 12 for paving as follows: With macadam on 44th Ave., Jefferson and Jackson Sts., to cost $5114, $5969 and $7070 respectively, and alley No. 2 W. with asphalt, $18,020. Wm. J. Fulton, City. Engr.

Indiana.—Bids reported desired by Co. Comrs. as follows for paving:

Until Apr. 6:

Logansport, for macadam with tar binder, Dykman Springs Rd., cost $8,700. C. R. Lynbrook Co. Surv.; A. P. Flynn, Co. Aud.

Covington, grading, draining and paving with gravel road in Davis Township, also Levi Timmons Rd. Hinman W. Newlin, Co. Aud.

Until Apr. 10:

Terre Haute, grading, paving and improving road in Honey Creek and Sugar Creek Townships.

Indianapolis, Ind.—Bd. Pub. Wks. voted to resurface S. Meridian St., at cost of $42,089.

★Contracts were awarded Mar. 20, by Bd. Pub. Wks. as follows: 200,000 gals. road oil, to Standard Oil Co., Indianapolis, and 200 car loads crushed stone, to A. F. Zearing Contr. Supply Co., Indianapolis.

Bd. Public Works voted to pave Roosevelt Ave.; estimated cost, with wood block, $42,768; also Guilford Ave.; cost $21,878.

South Bend, Ind.—The proposed bond issue of $174,635 for building 14 standard miles of Lincoln Highway, 18 ft. wide, across St. Joseph County, reported to have been legalized by State Legislature.

Coldwater, Mich.—Bids reported desired until Apr. 30 by County Road Comrs., for constructing about 1½ miles macadam road in Butler Township.

Brocton, Ill.—Bids reported desired until Apr. 12 by Comrs. of Highways Embarrass Township, at office of Town Clerk, Brocton, for 5 combination rock and gravel roads. Karl J. Barr, Co. Supt. of Highways, Paris.

Chicago, Ill.—Bids desired until Apr. 5 by L. E. McGann, Comr. Pub. Wks., for furnishing and delivering, f. o. b. cars, at any team track in this city, crushed limestone, for use of the Bureau of Streets.

★Contract awarded Mar. 20 for 4000 cu. yds. crushed granite, to Wisconsin Granite Co., 133 Washington St., at $2.05 per cu. yd.; and to Standard Oil Co., 72 W. Adams St., for 1,500,000 gal. road oil at 2.5 cts. per gal. Walter G. Leininger, Supt. Bureau of Streets.

Bids desired until Apr. 9 by Bd. Local Improvements (Edw. J. Glackin, Secy.), for improving Blackstone and Paxton Aves., W. 83d, N. Rockwell, S. May, E. 58th and a number of other streets and alleys. Bids desired on vitr. brick, asphalt, Portland cement concrete, etc.

Genoa, Ill.—City will let contract about Apr. 19 for 10,110 sq. yds. reinforced concrete paving 7 in. thick, 2000 lin. ft. concrete curb and gutter, with excavating and storm water inlets; estimated cost $16,561.75. Dr. A. M. Hill, Secy. Bd. Local Improv., Genoa; J. E. Lowman, Engr., Sycamore.

Illinois.—Bids desired until Apr. 7 by State Highway Comn., Springfield, for following State Aid work, all cement to be furnished by State: 7300 ft. Kendall County, Sect. A, 7300 ft. concrete, cost $13,335.

Sangamon County, Sect. F, 1700 ft. brick, cost $5363.

★**Pekin, Ill.**—Bd. Local Improvements awarded to Jansen & Zoeller, Pekin, contract for paving State and 2d Sts. with brick, at $44,076.

★**Rockford, Ill.**—Contract awarded by Bd. Local Improv. Mar. 15 for paving Prospect St. with macadam, about 9600 sq. yds., to Hart & Page, of Rockford, at $10,084.

Beloit, Wis.—Bids desired until Apr. 10 at the office of the Pub. Wks. Com. (Geo. P. Haynes, Chmn.) for furnishing material and improving portions of Bushnell Chapin, Church, Clary, Harrison and 19 other streets, requiring 128,000 sq. yds. paving, 5,300 lin. ft. curb and 500 lin. ft. covered gutter. Bids desired on any or all of the following types of pavement: Creosoted wood block, vitr. block, sheet asphalt, asphaltic concrete; reinforced, 2 course, Portland cement concrete; tar macadam, mixed method; all on 5-in. concrete base.

La Crosse, Wis.—Bids reported desired until Apr. 24 by Bd. Pub. Wks. (John Vollmar, Chmn.), for paving with brick and improving Rose and Jay Sts.

Prairie du Chien, Wis.—Bids desired until Apr. 23 (extension of date from Apr. 14) by W. H. Turbitt, City Clk., for furnishing material and laying 9106 sq. yds. permanent pavement on concrete foundation, 3500 ft. curb and gutter and other accessories. Bids desired on the following kinds of pavement: Reinforced concrete, asphaltic concrete, vitr. brick, creosoted block, sandstone and tarvia.

Racine, Wis.—Bids reported desired until Apr. 8 by Jos. J. Patrick, Co. Clk., for grading, surfacing and building culverts on Corliss Road in Mt. Pleasant, about 5465 sq. yds. waterbound macadam.

★**Cedar Rapids, Ia.**—Contracts for paving awarded by City Council Mar. 19 to Ford Paving Co., Cedar Rapids: 1st Ave., with brick asphalt filler, at $91,932, and with vitr. paving block, 6th and 11ts Sts., 8th Ave. west and 16th Ave. west, at $17,897.

Clarinda, Ia.—Bids desired until Apr. 8 by T. A. Wilson, City Clk., for grading, curbing and paving Water St., requiring approximately 3250 ft. curb or curb and gutter; 4480 sq. yds. asphalt concrete or 4930 sq. yds. concrete pavement.

★**Sioux City, Ia.**—Contract awarded Mar. 13 for paving W. Riverside Ave. and Iowa St. with concrete, to Julius Orensen, of Sioux City, at $2 per sq. yd.

★Contract awarded Mar. 20 for paving with concrete Grand View Boule. to Hanlan & Okes, Sioux City, at $1.12 per sq. yd. Paul J. Wells, City Clk.

★Contract awarded to Jensen & Krage, Sioux City, for paving 20th St. from Summit Ave. to west line, from Pierce to Summit, and also 21st St. from Pierce to Summit, with concrete, at $1.12½ per sq. yd.

Duluth, Minn.—City Council has ordered improvement of 22nd Ave. W. for 3 blocks. Estimated cost with brick paving, $16,400; sandstone paving, $18,100; or reinforced concrete, $13,900. John Wilson, City Engr.

Minneapolis, Minn.—Bids reported desired until Apr. 5 by A. P. Erickson, Co. Aud., for grading and graveling 9761 lin. ft. road on Road No. 8, Maple Grove Township, and 3840 lin. ft. on Road No. 82, Excelsior Township.

Bids desired until Apr. 19, same place as above, for a 600-gal. air pressure oil distributor, also a 2-horse street sweeper.

Slayton, Minn.—Bids reported desired until Apr. 5 by E. V. O'Brien, Co. Aud., for 10 dump wagons, 4 Fresno scrapers, 1 Norman scraper and 1 No. 5 plow.

St. Paul, Minn.—City Council reported to be considering paving of streets from Dale St. to Lexington Ave. and from Summit Ave. to Marshall Ave., exclusive of streets in district already paved or for which paving orders are pending. This paving order will include a district more than half a mile square.

Walker, Minn.—Bids desired until Apr. 16 by C. D. Bacon, Co. Aud., for constructing State Rural Highways, Nos. 81 and 83. Highway No. 81 involves 30,975 cu. yds. surfacing, 48,381 cu. yds. grading, 129,000 lin. ft. turnpiking, 31,263 cu. yds. off-take ditches, 56,324 cu. yds. side ditches, 4,076 lin. ft. corrugated metal culverts, 410 cu. yds. concrete culverts, etc. Total estimated cost, $69,947. Highway No. 83 involves 10,746 cu. yds. surfacing, 113,550 cu. yds. grading, 48,850 lin. ft. turnpiking, 18,934 cu. yds. off-take ditches, 20,100 cu. yds. side ditches, 4849 lin. ft. corrugated metal culverts, 464 cu. yds. concrete culverts, two 24 ft. span concrete and steel bridges. Total estimated cost, $61,131. Geo. A. Ralph, Engr., Shubert Bldg., St. Paul.

McPherson, Kan.—Bids desired until Apr. 10 by Milton Hawkinson, City Clk., for 26 blocks of street paving and 8 blocks of alley paving. H. A. Rowland, City Engr.

Hutchinson, Kan.—Bids reported desired until Apr. 9 by Geo. W. Lee, Co. Clk., for improving 5 miles road in North Hayes Township, known as Raymond-Sylvia Rd.

Ottawa, Kan.—Bids desired until Apr. 8 by B. W. Harris, City Clk., for grading, curbing and paving with vitr. pressed brick block and on vertical fibre brick, 13 blocks on 7th St., about 12,900 sq. yds. pavt. and 9800 lin. ft. combined curb and gutter.

Fargo, N. D.—Bids reported desired until Apr. 8 by A. R. Watkins, City Aud., for paving and curbing portions of Roberts, 6th and other streets. Bids desired on bituminous concrete, Portland cement, concrete, bitulithic or asphalt.

Jamestown, N. D.—Bids desired until 2 P. M. Apr. 5 by And. Blewett, Co. Aud., for constructing a road to cost about $8000.

Kansas City, Mo.—Bids desired until Apr. 6 by Bd. Pub. Wks., for constructing vertical fiber vitr. brick block pavement on State St., and vitr. brick block on Summit St., and creosoted wood block on McGee St.

Bryan, Tex.—Bids desired until Apr. 7 by H. Crenshaw, City Secy., for furnishing material and paving with concrete and constructing curbs and gutters on certain streets.

Longview, Tex.—Citizens voted $300,000 bonds for constructing 75 miles macadam roads.

Ft. Worth, Tex.—Bids desired until 9 A. M., Apr. 6, by F. J. Von Zuben, City Engr., for paving with bitulithic, poured asphalt, macadam, sheet asphalt, or Bermudez bituminous concrete on portions of Cannon and Travis Aves., Cherry, Lilac and other streets, in all about 28,450 sq. yds.

Only bid received by City Commission for paving with asphalt macadam 3 roads leading to county roads submitted by Roach, Mannigan Paving Co., Memphis, Tenn., at $35,000.

Pecos, Tex.—Miss W. E. Wood, Co. Clk., writes that W. B. Bullock, of Kansas City, Mo., has been engaged as engineer for 65 miles of grading and 30 miles of surface roads. Contract for road work not let. Bonds have been sold to engineer.

★**Polytechnic, Tex.**—Contract for 15,000 ft. of 3½-ft. cement sidewalks awarded by Polytechnic Young Men's Business League to E. H. Allen, Ft. Worth.

Wichita Falls, Tex.—About $45,000 paving bonds have been sold by city.

Everett, Wash.—Bids will be received about Apr. 16 by City Council for grading, constructing curbs and gutters cement walks on Funston St.

Montesano, Wash.—Bids reported desired by County Auditor until Apr. 19 for constructing 3 highways, involving grading and graveling of 20,000 lin. ft.

Redmond, Wash.—Bids reported desired until Apr. 20 by County Comrs., Seattle, for constructing 6 miles Redmond-Snoqualmie Rd., near Redmond, to consist of grading and graveling. Probable cost $65,000.

Seattle, Wash.—Contract is about to be let by Bd. Pub. Wks. for constructing concrete sidewalks on Woodlawn Ave.

Contract is about to be let by Bd. Pub. Wks. for paving 8th Ave. West; cost $47,698.

Plans have been approved and contract will soon be let by Bd. Pub. Wks. for paving 12th Ave. Dist., extending from Broadway to 14th Ave. and from East Union St. to East Olive St.; cost $232,401.

Tacoma, Wash.—Contracts about to be let by county for paving Pacific Highway, from Tacoma Speedway 1¼ miles to Custer, cost $12,000, and paving stretch roadway between Alderton and Orting, cost about $35,000.

Walla Walla, Wash.—About $21,000 paving bonds have been sold by city.

Bids desired until Apr. 30 by M. A. Powers, City Clk., for paving to cost $90,000.

★**Oregon.**—Following are totals 4 lowest bids opened Mar. 17, by State Highway Comn., Salem (H. L. Bowlby, Engr.), for constructing Mitchell Point, Section of Columbia Highway, Hood River County: Stanifer-Clarkson Co., Northwest Bank Bldg., Portland, $40,343 (awarded contract); Copenhagen Bros., 925 Yeon Bldg., Portland, $42,722; A. Guthrie & Co., Inc., 624 Pittock Bldg., Portland, Ore., $45,048; Carlson, Chindahl & Co., 322 Fernwell Bldg., Spokane, Wash., $45,077.

★Following are the unit prices of Stanifer Clarkson Co., successful bidder on the above Mitchell Point section of Columbia Highway:

Embankment haul to 300 ft. (per cu. yd.)	$0.24
Embankment haul 300 to 1,000 ft. (per cu. yd.)	.27½
Earth excav. haul to 300 ft. (per cu. yd.)	.24
9,000 cu. yds. earth excav. haul 300 to 1,000 ft.	.27½
Hard pan haul to 1,000 ft.	.45
1,500 cu. yds. loose rock haul to 1,000 ft.	.47
8,000 cu. yds. shell rock haul to 1,000 ft.	.30
12,000 cu. yds. hard rock haul to 300 ft.	.77½
Hard rock haul 300 to 1,000 ft.	.81
Riprap, loose, haul to 1,000 ft.	.75
Riprap, hand placed, haul to 1,000 ft.	1.50
20,000 cu. yds. overhaul on above for each 100 ft.	.01
420 lin. ft. tunnel, complete	33.00
45 lin. ft. tunnel windows	30.00
Wrought iron and spikes, per lb.	.08
Cast iron, per lb.	.07
44 M ft. creosoted timber and plank	47.50
Tile drains, 4 in., per lin. ft.	.15
50 lin. ft. cor. iron pipe, 12 in.	2.00
50 lin. ft. cor. iron pipe, 18 in.	2.50
50 lin. ft. cor. iron pipe, 24 in.	3.00
50 lin. ft. concr. pipe in place, 12 in.	1.50
50 lin. ft. concr. pipe in place, 18 in.	2.00
50 lin. ft. concr. pipe in place, 24 in.	2.50
Vitr. tile in place, 6 in., per lin. ft.	.35
Vitr. tile in place, 8 in., per lin. ft.	.50
50 lin. ft. vitr. tile in place, 12 in.	1.05
50 lin. ft. vitr. tile in place, 18 in.	1.50
50 lin. ft. vitr. tile in place, 24 in.	2.00
30 sq. yds. rubble masonry (dry), 1 to 6 ft. high	2.25
30 sq. yds. rubble masonry (dry), 6 to 12 ft. high	2.75
20 sq. yds. rubble masonry (dry), 12 to 18 ft. high	3.25
20 sq. yds. rubble masonry (dry), 18 to 24 ft. high	3.75
Rubble masonry (cement mortar), per cu. yd.	10.00
275 cu. yds. concrete, Class "A"	15.00
480 lbs. reinforcing steel, in place, per 100 lbs.	3.50
380 lin. ft. railing on viaduct	1.50
3 acres clearing, light	90.00
60 sq. rd. grubbing	2.00

Bakersfield, Cal.—Bids desired until Apr. 12 by Bd. Superv. for grading, paving and constructing culverts on Div. 3, Sect. 2, Wasco-Lost Hills Road, about 10.5 miles; also separate bids for furnishing Portland cement, about 90,000 bbls. I. L. Miller, Clk.

Dunsmuir, Cal.—Citizens voted to construct concrete road through Dunsmuir; cost, about $25,000.

★**Elmhurst, Cal.**—Contract for paving streets with macadam awarded to D. U. Toffelmier, San Leandro, at $19,000.

Hanford, Cal.—F. E. Newton, City Clk., writes 5 miles of concrete base asphalt top pavement has been discussed by City Bd. of Trustees. No definite action at this time.

Hollister, Cal.—Bd. Town Trus. voted to pave South and Monterey Sts.; cost $25,000.

Long Beach, Cal.—Lowest bid opened by Bd. Pub. Wks. Mar. 17 for paving with cement American Ave. submitted by Fairchild - Gilmore - Wilton Co., Pacific Electric Bldg., Los Angeles, at $36,272.

Manhattan Beach, Cal.—Following are bids opened Mar. 17, by City Trustees, for improving 15th St. and 3 alleys: Modern Constr. Co., 112 W. 9th St., Room 1023, Los Angeles, $14,251 (awarded contract); E. Schilling, Burbank, $21,719; Redd & Pence, Builders' Exchange, Los Angeles, $15,743; Geo. L. Carroll, 3315 Mojeska Ave., Los Angeles, $18,388. L. Price, City Clk.

Unit prices of Modern Constr. Co., successful bidder:

66,698	sq. ft. Grading and paving	$0.15
1991	ft. Curb (concrete)	.26
9511	sq. ft. Sidewalk	.128
4611	ft. 3 x 12-in. R. W. header	.15
1570	sq. ft. Conc. pavement	.138
208	ft. 2 x 12-in. R. W. header	.14
59.5	cu. yds. Soil	2.00
21	Light posts (ornamental concrete—each incl. conduit wiring)	65.00
5	Monuments	3.00
	Outlet and storm drain	75.00

Manhattan Beach, Cal.—Bids desired until Apr. 7 by Llewellyn Price, City Clk., for paving a portion of Manhattan Ave. about 178,400 sq. ft., 65,500 sq. ft. sidewalks, etc.

★**Oroville, Cal.**—Contract awarded Mar. 13 for paving about 18 blocks to Clark & Henery Constr. Co., Stockton, at $30,974. Other bids: Federal Constr. Co., San Francisco, $31,929; City Street Improv. Co., San Francisco, $35,951; Ransome Crummey Co., Sacramento, $38,600.

Redwood City, Cal.—Bids were opened Mar. 15 by Supervisors of San Mateo County for highway work, as follows:

★Colma, to Half Moon Bay Road, awarded to Spring Constr. Co., First National Bank Bldg., Berkeley, at $30,845. Other bidders: Jas. Willison, $31,664; Bates, Borland & Ayer, $37,303; Colma Contr. Co., $34,929; Peterson & Grier, $31,185.

★Road from Tunitas to San Gregorio, awarded to Jas. Willison, Half Moon Bay, at $24,906. Other bids: Bates, Borland & Ayer, Crocker Bldg., San Francisco, $34,638; Peterson & Grier, 62 Post St., San Francisco, $25,785.

Bids on Belmont to Crystal Springs Road were rejected and Jas. V. Neuman, County Surveyor, is to build the road.

Bids on the road from the first to second crossing of San Gregorio Creek on the Redwood City to San Gregorio Road were laid over until the next meeting of the Bd. of Supervisors, Apr. 5.

★**Riverside, Cal.**—Contract for constructing 22½ miles highway in Banning to Palm Springs section of county awarded by Bd. County Supervs. to B. R. Davisson Co., Monrovia, at $63,954.

San Gabriel, Cal.—Ira H. Stauffer, City Clk., writes it is proposed to pave Angeleno Ave., 41,120 sq. ft., with oil macadam on earth foundation, cost about $9,000. Engineer, E. T. Wright, P. E. Bldg., Los Angeles.

Sausalito, Cal.—Plans have been completed by City Engineer for constructing concrete and brick pavements on streets; cost about $27,000.

Ogden, Utah.—Bids reported desired until Apr. 8 by Washington Jenkins, Co. Engr., for building about 25 blocks of sidewalks.

Utah.—The State House at Salt Lake City has passed bills for appropriations for following roads: $52,000 Grand Canyon - Yellowstone Park Highway; $25,000, for constructing state road in Uinta and Duchesne Counties; $5,000 road between Fremont and Emery; $15,000, road between Grover and Boulder; $30,000, road through Tooele County to Nevada Line; $15,000, road from Helper to Duchesne; $20,000, state highway between Logan and Garden City, and $10,000, road from Tooele to Deep Creek.

Westmount, Que.—See "Sewerage and Sewage Disposal."

Victoria, B. C.—City Engineer estimates cost of paving Amphion Bank and other streets at total cost of $175,000.

City Council is about to let contracts for improvements as follows: Haultain St., pavement, cost $12,650; George Rd., concrete sidewalks, $17,566, and Richmond Rd., pavement, cost $8,625.

★Items marked thus give the names of parties awarded contracts.

STREET CLEANING AND GARBAGE DISPOSAL.

Philadelphia, Pa.—Local press reports state that bids are desired by M. L. Cooke, Dir. Dept. Pub. Wks., for garbage disposal for 1916.

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Items Arranged Geographically

River Improvements—Waterville, Me.—Green & Wilson, of Waterville, are reported to be making surveys of Kennebec River to cover entire river and its tributaries, work to require one or two years. The manufacturing companies along river are having the work done in order that plans may be made and dams built to hold back the surplus water of the spring for use during the summer. The engineers will also submit estimates of cost of dams and a complete storage system.

Port Development—Providence, R. I.—There is reported to be a movement on foot here for development of the Port of Fall River, including construction of a public terminal under supervisions of State Harbor and Land Comn. of Providence.

★**Dredging—Hartford, Conn.**—Contract for dredging in Connecticut River below Hartford (bids opened Mar. 18) has been awarded to Hartford & New York Transportation Co., of Hartford, at $13,000.

Crib—Buffalo, N. Y.—Bids desired by Francis G. Ward, Comr. Pub. Wks., until Apr. 14 for constructing a 600-ft. timber crib and concrete top or all concrete dock wall along Bird Island Pier, Black Rock Canal; cost $40,000. Geo. H. Norton, Deputy Engr. Comr.

River Fork — Rochester, N. Y.—New bids for deepening of river channel between Central Ave. dam and a point south of the aqueduct will be called for shortly; cost about $284,000. F. T. Ellwood, City Engr.

★**Sea Wall—Galilee, N. J.**—Contract awarded by Bd. Chosen Freeholders at Freehold, Mar. 23, for constructing sea wall at Galilee, to Owen J. Melee, of Long Branch, at $8,132.

Hydro-Electric Plant—Valdosta, Ga.—Plans and specification reported being prepared by South Georgia Power Co., recently incorporated with a capital of $2,500,000, for construction of a hydro-electric plant on Withlocoochee River, 4 miles from Valdosta. Electricity generated at plant will be transmitted to Valdosta, Quitman, Camila and other towns in this part of State. Frank Roberts is in charge of the project.

Hydraulic Dredge—Lynn Haven, Fla.—Bids desired until Apr. 15 by R. W. Beach, Sr., City Clk., for furnishing a hydraulic dredge, new or second hand, in good condition, together with necessary discharge pipe and other appurtenances for use in dock construction and other improvements. E. H. Wilbur, City Engr.

Wharf—New Orleans, La.—Bids desired until Apr. 7 by Bd. Comrs., Port of New Orleans, New Orleans Court Bldg., for constructing a pile and timber wharf on the east bank of the Mississippi River, between Soniat and Bellcastle Sts.; also a pile approach to same.

Dredging—New Orleans, La.—Bids desired until May 3 by Maj. Edw. H. Schulz, Corps Engrs., U. S. A., New Orleans, for dredging in Bayou Teche between Keystone Lock and Jeanerette, La., advertised in Engineering Record.

Drainage System—Union City, Tenn.—Bids reported desired until Apr. 12 by Directors Obion River Drainage Dist. (J. A. Coble, Secy.) for constructing about 1,564,300 cu. yds. levee work, with floating dredge, and about 631,700 yds. ditch work, 3 reinforced concrete sluiceways, etc.

Dredging—Alpha, O.—Contract awarded Mar. 18 by County Comrs. at Xenia (Geo. W. Kendall, Clk) to Jones Constr. Co. for Beaver Creek Channel work at $13,091. Work includes excav. of 144,183 cu. yds. earth, all of which is designed as floating dredge work, except about 1040 cu. yds., which is designed as team work. The work is located at Alpha Station, 12 miles east of Dayton. The work consists of deepening, widening and straightening Beaver Creek stream. Next 3 lowest bids: Chapman Bros., $14,280; Gilmore Bros., Toledo, $14,314; C. V. Oyen, Valparaiso, Ind., $14,314.

Reconstructing Dam—Marietta, O.—Bids desired until Apr. 26 by Lieut.-Col. H. Jervey, Corps Engrs., U. S. A., Cincinnati, for reconstructing in concrete the top of dam No. 2, Muskingum River, at Devols Station, about 53.4 miles above Marietta. The river is navigable for 6-ft. draft between its mouth and at Marietta and Zanesville.

River Improvement—Tiffin, O.—Bids desired until Apr. 20 by Wm. Heller, Dir. Pub. Service, for earth and rock excav., and furnishing necessary labor and material for constructing concrete retaining walls advertised in Engineering Record.

River Improvement Bonds—Tiffin, O.—River improvement bonds in the sum of $75,000 reported sold by City Auditor on Mar. 17.

★**Ditch — Boonville, Ind.**—Contract for constructing the Homer E. Totten dredge ditch reported awarded to John H. Blair, at $24,250.

★**Ditch — Mankato, Minn.** — Contract awarded Mar. 24 for constructing County Ditch No. 36 to North Star Concrete Co., of Mankato, at $23,100. C. L. Kennedy, Co. Aud.

Ditch—Olivia, Minn.—Following are 4 lowest bids opened Mar. 15 by County Comrs. (J. L. Johnson, Co. Aud.) for constructing County Ditch 57: H. J. Carson, Fairfax, $13,887; Kircher Bros., St. Paul, $13,990; Carl Christensen, Litchfield, $14,261, and Hector Coolsaet, Marshall, $14,275.

★**Ditch — Slayton, Minn.** — Contract awarded Mar. 24 for constructing Judicial Ditch No. 3 to the Widell Co., Mankato; approximate length of main ditch 24,600 ft., average depth 8 ft., 113 branches, aggregating in length 181,600 ft. tile 6 to 26 in. 6,400 ft. open ditch, 22,272 cu. yds. to be removed. Estimated total cost $72,882. E. V. O'Brien, Co. Aud.

★**Ditch — Wheaton, Minn.** — Contracts awarded Mar. 20 for ditch work as follows: To D. E. Morgan, St. Cloud, 5 contracts, 26 miles, about 167,000 cu. yds., cost $21,600, and to C. W. Rood Constr. Co., Grand Rapids, Wis., 5 contracts, 14 miles, 76,000 yds., cost about $10,900.

J. E. Dodds, Engr., Wheaton, writes that 30 additional miles of ditches, will be let this summer.

★**Levee—Osceola, Ark.**—Contract awarded Mar. 24 by Comrs. of Drainage Dist. No. 9 to Catchings & Co., Roseland, Ark., for 6700 cu. yds. levee embankment, at 18.05 cts., and 9000 cu. yds. excav., at 23.15 cts. per cu. yd. Work is located about 13 miles southwest of Blytheville, and will be constructed with teams and scrapers. Also to Memphis Bridge Co., Memphis, Tenn., for constructing 5 steel bridges 32 ft. long, on concrete abutments, at $2,809. Morgan Eng. Co., Memphis, Tenn., Engrs. for Dist.

Drainage System—Osceola, Ark.—New bids desired Apr. 14 by Comrs. Grassy Lake and Tyronza Dists. No. 9 (S. E. Simpson, Chmn.) for constructing levee embankment in Dist. 1 from plans of Morgan Eng. Co., Engrs., Memphis, Tenn.

★Contract for levee embankment in Dist. No. 2 was awarded Mar. 24 to Ketchens & Co., of Rosland, Ark.

Seawall Bonds—Galveston, Tex.—Bids desired until Apr. 5 by John M. Murch, County Aud., for $42,000 seawall and breakwater bonds.

Irrigation Work—Harlingen, Tex.—Bids desired until Apr. 10 by Bd. Directors Cameron County Irrigation Dist. No. 1, Harlingen, for constructing one or two wooden box flumes over Arroyo Colorado.

North Yakima, Wash.—County Engineer reported to have been instructed to prepare plans for a drainage system in Dist. 25, to cost about $38,000.

Pumping Plant—Seattle, Wash.—Following are bids opened by Maj. J. B. Cavanaugh, Corps Engrs., U. S. A., Burke Bldg., Seattle, Mar. 15, for pumping plant for Lake Washington Canal locks: R. D. Wood & Co., Philadelphia, Pa., $29,076; Hans Pederson, Seattle, $31,774; United Iron Works, Oakland, Cal., $35,506; Allis-Chalmers Mfg. Co., Milwaukee, Wis., $35,697; Chas. C. Moore & Co., San Francisco, Cal., $39,609; Seattle Constr. & Dry Dock Co., Seattle, $43,517.

★**Beach Protection—Cape May, N. J.**—Following are unit prices of 4 lowest bids opened Mar. 22 for renewal, repair and additions to boardwalk, beach drive and bulkhead, affording additional protection to beach front: (a) Atlantic Constr. Supply Co., Atlantic City, $55,489 (awarded contract); (b) Cantrell Constr. Co., Camden, $55,505; (c) Pugh & Hubbard, $58,309; (d) C. R. Simpson, Huntington, Pa., $58,840.

	*(a)	(b)	(c)	(d)
5,000 holding piles, white oak	$2.55	$2.61	$2.64	$2.99
220 repair piles, white oak	3.50	4.15	3.34	3.60
7.2 M ft. hemlock sheeting	88.00	34.70	54.50	46.80
19 M ft. yellow pine wales (long leaf)	88.00	85.65	72.65	54.42
2,300 cu. yds. brush mats	.90	.83	.945	1.08
11,000 tons stone	2.65	2.60	2.765	2 59
13,000 lbs. galv. tie rods, 1 in.	.06	.06	.062	.04
800 boardwalk foundation piles, white oak	1.00	1.03	1.71	1.14
600 lin. ft. boardwalk erected, lumber furnished	.70	.64	.73	1.29
2,500 lin. ft. new boardwalk erection	2.10	2.45	2.60	2.59
1,500 lin. ft. galv. iron railing (2 and 1½ in. pipe)	.55	.57	.75	.73
Repair storm water drains (lump sum)	360.00	181.00	300.00	441.25
Furnish labor, with superintendent (per hour)	.35	.30	.325	.25
6,200 cu. yds. fill washouts	..	..	.45	.42
1,950 cu. yds. compacted gravel	..	..	1.49	1.07

★*Items marked thus give the names of parties awarded contracts.*

Seawall—Seattle, Wash.—Bids desired about Apr. 20 by Bd. Pub. Wks. for constructing 1,800 ft. concrete seawall along Railroad Ave. between Yesler Way and Madison St.; cost about $150,000. Work includes about 16,000 cu. yds. earthwork, 5250 sq. yds. brick paving, 4700 cu. yds. concrete wall, 8500 lbs. reinforcing steel, 190 M. ft. planking, 25 M. ft. pile bulkhead, 45,000 ft. back filling, etc.

River Work — Seattle, Wash.—Lowest hid opened Mar. 26 by Bd. of Wks. for making fill in the Duwamish River submitted by Holt & Jeffery, Transportation Bldg., at $26,976.

Irrigation—Echo, Ore.—A. B. Thomson, Dir. Teel Irrigation Dist., writes that no contracts have been let for the proposed improvements; bid for the purchase of $700,000 bonds will be received early in April. Engineer, W. B. Hinkle, of Echo.

Irrigation—Ione, Cal.—John V. Powers reported interested in construction of the Volcano Irrigation ditch here, to cost about $400,000.

★**Harbor Work—Los Angeles, Cal.**—Contract awarded by Harbor Comn. Mar. 17, to S. G. Hindes, of San Francisco, for dredging channel in fisherman harbor and filling in sea back of the bulkheads at 10.46 cts. per cu. yd. total cost $130,000.

Irrigation—Redding, Cal—C. R. Wiegel, Co. Surveyor, writes that surveys have been started by Reclamation Service for irrigation work on Pitt River, but it will be some time before these surveys are complete.

Dam—Morgan, Utah.—Plans for a new dam to increase the East Canyon Creek reservoir of the Weber & Davis County Canal Co. in Morgan County, from 13,000 to 27,000 acre-ft. of water storage capacity have been filed with W. D. Beers, State Engr., Salt Lake City. The new dam will be 150 ft. above creek bed and will extend 50 ft. below into the earth with its foundations; it will be of masonry arch type.

Wharf—Halifax, N. S.—Bids desired until Apr. 10 by G. J. Desbarats, Deputy Minister Naval Service, Ottawa, Ont., for construction a naval wharf at Halifax.

Regulating Valves, Etc. for Locks—Panama.—Bids desired until April 26 by Maj. F. C. Boggs, Corps Engrs., U. S. A., General Purchasing Officer, Panama Canal, Washington, D. C., for furnishing regulating valves, machine motors, and starting panels and limit switches for locks, Circular 911, advertised in Engineering Record.

ELECTRIC RAILWAYS.

Items Arranged Geographically

★**Brooklyn, N. Y.**—The Public Service Comn. for the 1st Dist. approved award of contract by New York Municipal Railway Cor. to the Star Electric Co., 42d St. Building, New York, at $17,393, for installation of an emergency alarm system in the 4th Ave. Brooklyn subway.

Greenwood, S. C.—Savannah, Piedmont & Western Ry. Co. incorporated to construct interurban railway between Greenwood and North Augusta, distance 60 miles. J. Peyton Clark and S. H. McGhee said to be interested.

Florence, Ala.—Surveys are being made by Florence & Huntsville Interurban Ry. Co. to construct 75-mile electric to connect Florence, Rogersville, Athens and Huntsville. Capital $100,000. S. Jacobs, Birmingham, Pres.; Thurston H. Allen, Florence, Secy.

Lafayette, Ind.—Preliminary arrangements being made by Lafayette & Northwestern Ry. Co. for electric railway to connect Lafayette and Chicago, Ill. G. L. Brown, Gen Mgr.

Faribault, Minn.—Plans being considered by Southern Minnesota Traction Co. to begin work soon on electric railway between Faribault and Waseca. H. C. Theopold, Faribault, is interested.

Dallas, Tex.—Work will begin soon by Dallas Southwestern Traction Co. on electric railway to connect Dallas, Cleburne and Glen Rose. John T. Witt, Ch. Engr.

Houston, Tex.—Construction of an interurban railway to connect Houston with Richmond is contemplated, length 30 miles. T. B. Wessendorff, Richmond, P. Eastburn, Houston, said to be interested.

Fresno, Cal.—Plans are being prepared by Fresno Interurban Ry. Co. for an extension to Las Palmas. John B. Rogers, Ch. Engr., San Francisco.

Ogden, Utah.—Ogden, Logan & Idaho Ry. Co. contemplates extending, repairing and equiping railway between Ogden and Logan; also for extension to Brigham City.

RAILROADS.

Items Arranged Geographically

Pittsburgh, Pa.—Ordinances for abolishing grade crossings at 33d St. being considered by Pub. Wks. Comn. Work will cost approximately $50,000 and will be largely done by the Baltimore & Ohio Railroad and Pittsburgh Ry. Co., the city will pay a portion of cost under an agreement with the two companies.

Greenwood, S. C.—A charter is reported granted to the Savannah Piedmont & Western Ry. Co., with a capital of $30,000, to build a railroad of standard gauge from North Augusta on Savannah River to Greenwood, a distance of 60 miles. J. Peyton Clarke and Kenneth Baker, of New York, are reported among the incorporators. The road will use either steam or electricity.

Lula, Ga.—State R. R. Comn. has granted Lula-Homer R. R. Co. permission to issue $185,000 common stock to purchase a right-of-way and prepare roadbed for a line of road to run from Lula to Homer, a distance of 12½ miles.

Alliance, O.—Bids reported desired until Apr. 6 by Director Pub. Service for constructing a reinforced concrete subway under the tracks of the Pennsylvania R. R. at Arch St. Probable cost $100,000.

Indianapolis, Ind.—Local press reports state that approximately $4,000,000 will be spent during next 3 years on elevation of all tracks of the Union Ry. Co., from Washington and Noble Sts., to the Kentucky Ave. crossing, and tracks of other railroads connecting with them; the plans also include considerable bridge construction work.

San Antonio, Tex.—No plans have yet been prepared for terminals contemplated at San Antonio by the Missouri, Kansas & Texas Ry. system (Leon F. Lonnbladh, Ch. Engr., Dallas). Cost reported to be $1,500,000.

Gila Bend, Ariz.—The El Paso & Southwestern Railroad Co. (F. L. Guy, Div. Engr., Douglas, Wyo.) will build a railroad to the Copper Camp from Gila Bend on the Southwestern Pacific line; estimated cost $1,000,000.

PUBLIC BUILDINGS AND SCHOOLS.

Items Arranged Geographically

Deering, Me.—Bids reported desired until Apr. 5 by Rev. J. W. Houlihan, Deering, for erecting a 2 story school costing $40,000. T. G. O'Connell, Archt., 18 Boylston St., Boston, Mass.

Durham, N. H.—Plans being prepared by Jas. H. Ritchie, 8 Beacon St., Boston, Mass., for an addition to the New Hampshire State College; cost about $135,000.

Greenfield, Mass.—Following are four lowest bids opened Mar. 15 by O. Wenderoth, Superv. Archt., Washington, D. C., for erecting the U. S. Post Office—(a) limestone, (b) sandstone: Thos. W. Cissel, Wooster, O., (a) $59,000, (b) $62,000; Westchester Eng. Co., White Plains, N. Y., (a) $59,661, (b) $63,000; W. H. Fissell & Co., 1133 Bway., New York, (a) $60,400, (b) $62,900; Chas. E. Currier, 110 Summer St., Boston, Mass., (a) $60,900, (b) $61,300.

Springfield, Mass.—Reported bill has passed both House and Senate appropriating $100,000 for new Hampden County training school.

West Springfield, Mass.—The Mead property has been purchased for the proposed high school; cost $100,000.

★**Danbury, Conn.**—Contract for erecting U. S. Post Office awarded to Chas. McCaul Co., Philadelphia, Pa., at $58,495.

Brooklyn, N. Y.—Plans approved by Municipal Art Comn. for a 2-story laundry staff building to be erected at Winthrop St. and Albany Ave. for Dept. Public Charities. Cost $75,000. Sylvester A. Taggart, Archt., Municipal Bldg., New York.

★**New York, N. Y.**—Contract for repairing the University Hall at Columbia Univ. awarded to M. Reid & Co., 114 W. 39th St. Cost $70,000. McKim Mead & White, Archts., 101 Park Ave.

Bids desired until Apr. 26 by Col. W. M. Black, Corps Engrs., U. S. A., Army Bldg., New York, for constructing a storehouse and a boat shed on Mill Rock, at Hell Gate, East River, N. Y. advertised in Engineering Record.

Bids desired until Apr. 22 by Bd. Health S. S. Goldwater, Pres.) for general construction, also plumbing, gas fitting and heating of a nurses' home and a medical staff house on the grounds of the Willard Parker Hospital, Foot E. 16 St., Boro. Manhattan.

Com. on Finance Bd. Educ. reported in favor of issuing $450,000 corporate stock for erecting school on 20th St. between 8th and 9th Aves.

★**North Brother's Island, N. Y.**—Contract awarded by Bd. Health, N. Y. City, on bids opened Mar. 22 for erecting 2 concrete pavilions on the Riverside Hospital grounds, North Brother's Island as follows: General contract, to Kelly & Kelley, 12th St. and Vernon Ave., Long Island City, L. I., at $90,400; plumbing, E. Krause, 144 E. 58th St., N. Y. City, $7,900; heating, Walker & Chambers, Larchmont, N. Y., $7,260.

★**Utica, N. Y.**—Contract for erecting the technical high school in connection with the Utica Free Academy, awarded to Pius Kerner & Sons, of Utica, at $292,600. P. J. Sullivan Co., of Boston, Mass., secured the plumbing at $18,873, and electric work to Langdon & Hughes Co., of Utica, at $12,873.

Watervliet, N. Y.—Following are lowest bids opened Mar. 22 by Bd. Contract and Supply for erecting the city hall: General contract, entire work, J. F. Crowe Constr. Co., Albany, $57,975; mason and carpentry, Kelly Constr. Co., Yonkers, $43,000; carpentry, including roofing, painting and glass work, Jas. T. Young, Watervliet, $13,300; heating and plumbing, John F. Knaupp, Troy, $4,876. Demers, Mosley & Campaigne, Archts., Troy.

Camden, N. J.—Council appropriated $412,000 for a high school.

Glen Ridge, N. J.—Bids desired until Apr. 5 by Bd. Educ. for erecting a 2 story and basement high school addition costing $60,000. Edw. L. Tilton, Archt., 32 Bway., New York.

Greystone Park, N. J.—Bids desired until Apr. 14 by New Jersey State Hospital, Greystone Park (O. M. Bowen, Warden) for erecting an extension to the industrial building.

Jersey City, N. J.—Reported City Comrs. are about to ask bids for erecting the New City Hospital and Nurses' Home and a new police and fire headquarters buildings, the cost to be about $1,000,000.

Newark, N. J.—City Superintendent Poland recommended to the Bd. Educ. a new high school, an addition to the East Side High School and the completion of the 4th floor of the Central School, a new building for the Boys' Industrial School, new building to replace the S. Market St. School, consolidating of the Chestnut and Washington Sts. schools in a new building or the erection of an addition to the Washington St. building.

Newark, N. J.—Bids reported desired until Apr. 19 by H. Argue, Clk. Bd. Educ., for erecting a 4 story school costing $125,000. E. E. Guilbert, Archt., City Hall.

Trenton, N. J.—Plans prepared by W. A. Poland, Broad St. Bank Bldg., for the Junior High School to be erected on the Almshouse site and to cost $260,000.

★**Easton, Pa.**—Contract awarded to F. L. Hoover & Son for erecting a 1-story stone and brick chapel, 125 x 130 ft., for Lafayette College, to cost $100,000.

Fox Chase (P. O. Philadelphia) Pa.—The Business Men are said to be considering the erection of a 3-story municipal hall costing $25,000.

Franklin, Pa.—Bids reported desired until 1 P. M. Apr. 5 by Bd. School Directors, Rockland Township (J. C. Lusher, Secy.) for erecting a high school.

McKeesport, Pa.—Reported bids desired until Apr. 22 by W. T. Norton, Secy. Bd. School Directors, for erecting high school. Cost about $200,000. Vrydaugh & Wolfe, Archts., Pittsburgh.

Oil City, Pa.—School Bd. reported to be in favor of erecting a 16 to 20-room school at State and 2d Sts.

Philadelphia, Pa.—Plans prepared by E. F. Durang & Son, 1200 Chestnut St., for a hospital which the Sisters of Mercy propose erecting at Cedar Ave. and 53d St. at a cost of $1,500,000. Main building is to be 52 x 179 ft., with four wings each 45 x 175 ft.

Plans being prepared by J. Horace Cook, City Hall, for an 8 story brick and stone fireproof administration building 80x100 ft., to be erected by the Bd. Educ.

Pittsburgh, Pa.—Detailed plans for the combined $3,000,000 city hall and court house are to be prepared at once by Edw. B. Lee, 307 4th Ave., and bids for construction will soon be asked. Jas. L. Stuart, Oliver Bldg., is Consulting Engr.

Reported new bids to be asked by Bd. Pub. Educ. for erecting the Schenley High School.

★**Pottsville, Pa.**—Contract for erecting annex to Patterson Building awarded to Walter Wertley of Pottsville at $44,250.

Baltimore, Md.—Reported bids about to be asked for erecting 2 buildings at Homewood for the John Hopkins Univ., one to be for Physical Laboratory, Wyatt & Nolting, Baltimore, Archts., and the other chemical laboratory, Carrere & Hastings, Archts., New York, N. Y.; each building to cost $200,000.

Indian Head, Md.—Bids desired until Apr. 17 at Bureau Yards and Docks, Navy Dept., Washington, D. C. (H. R. Stanford, Ch.), for 2 corrugated steel cotton storehouses at the Naval Proving Ground, Indian Head.

Wilmington, Del.—Bill has passed both House and Senate appropriating $150,000 for erecting addition to high school.

Competitive plans desired until Apr. 12 by Bd. Pub. Educ. (H. J. Guthrie, Secy.) for above addition to the high school, to be 4 story.

Moundsville, W. Va.—Reported bids will soon be asked by State Bd. Control, Charleston, for erecting the tuberculosis hospital at the State Penal Inst., Moundsville. M. Z. White, Warden.

Wilmington, N. C.—Bids desired until Apr. 19 by O. Wenderoth, Superv. Archt., Washington, D. C., for construction complete (including mechanical equipment) of medical officer's quarters at the U. S. Marine Hospital, Wilmington.

★**Spartanburg, S. C.**—Contract for erecting Northside School awarded to Willard Boggs & Co., Spartanburg, at $30,184. Plumbing and heating awarded to W. B. Guimarin of Columbia.

Atlanta, Ga.—Finance Committee reported to be considering erecting for the Purchasing Department a central warehouse and storage quarters.

Conyers, Ga.—Bids desired until Apr. 15 by the City Council, at office of Chas. K. Gailey, Mayor, for furnishing material and erecting a graded school. Wm. A. Edwards, Archt., Candler Bldg.

Decatur, Ga.—Citizens voted $25,000 bonds to erect a school in Oakhurst Sect.

Savannah, Ga.—Bd. Educ. taking steps to erect a 16-room school on the East Side.

★**Jacksonville, Fla.**—Contract for erecting court house annex awarded to W. P. Richardson Co. of Jacksonville at about $164,000.

★**New Orleans, La.**—Contract for making repairs to buildings at the Naval Station awarded to C. A. Eure, Hattiesburg, Miss., at $28,658.

Tioga, La.—Bids reported desired until Apr. 6 by D. B. Showalter, Co. Supt., Alexandria, for erecting a 2-story brick school at Tioga. C. Scott Yeager, Archt., Alexandria.

Chattanooga, Tenn.—Bonds have been sold as follows: $228,000 grammar school, $100,000 Erlanger Hospital and $125,000 Wauhatchie Pike.

Plans prepared for the reconstructing of the present main building at the Univ. of Chattanooga and the erection of additions of one wing on the east side and one on the west side. An addition is also contemplated to the school of engineering.

Nashville, Tenn.—Bids reported desired until Apr. 13 by Vanderbilt Univ., care of Chas. S. Brown, Engineering Bldg., for erecting a 4 story and basement college of medicine building containing 150 class rooms and costing $500,000. Saml. Hannaford & Sons, Archts., Cincinnati, O.

Highland Park, Ky.—Bd. Trus. of Highland Park Graded Common School Dist. No. 46 reported to be planning school improvements which will include a new school costing $50,000.

Columbiana, O.—Bids reported desired until Apr. 10 by N. C. Badinger, Clk., Bd. Educ., for erecting a 2-story and basement centralized school. Probable cost $40,000.

Dayton, O.—Preliminary steps have been taken by Bd. Educ. on issuing of $200,000 school improvement bonds.

★**Hudson, O.**—Contract for erecting 10-room grade and high school, reported awarded to E. A. Wier of Pittsburgh, Pa. J. W. C. Corbuster, Archt., Cleveland.

Lancaster, O.—Bids will be opened Apr. 26 for erecting city hospital to cost $50,000 from plans prepared by Wilbur T. Mills, 49 N. High St., Columbus.

Troy, O.—Bids desired by Bd. of Educ. (R. S. Hufford, Secy.) until Apr. 24 for erecting 2-story brick school, to cost $25,000. Architect, F. L. Packard, of Columbus.

Vandalia, O.—Bids desired until Apr. 22 by Bd. Educ. (J. M. Seabrook, Clk.) for furnishing material and erecting a primary and grammar school. Elmer L. Gerber, Archt., U. B. Bldg., Dayton.

Woodstock, O.—Citizens voted $27,000 bonds to erect school.

Xenia, O.—Roos Township has sold $35,000 school bonds.

Ben Davis, Ind.—Bids reported desired until Apr. 9 by Jos. E. Hillman, Trus., R. F. D. No. 21, Indianapolis, for erecting a 2 story and basement township high and grade school costing $40,000. G. W. Gordon, Archt., 1438 Ashland Ave., Indianapolis.

Bloomington, Ind.—Trus. of Indiana Univ. have authorized erection of a stone gymnasium costing $150,000.

Ft. Wayne, Ind.—School Trus. are considering erection of new school in Washington Township, costing $30,000.

Plans for Brothers School to be erected at Clinton and Jefferson Sts. to be prepared by Chas. R. Weatherhogg, Hamilton Natl. Bank Bldg.; cost $35,000.

Hammond, Ind.—Bids desired until Apr. 8 (readvertisement) by School Bd. (A. J. Dreesen, Secy.) for erecting the Columbia School. Mac Turner, Archt., Tapper Bldg.

West Lafayette, Ind.—Bids reported desired until Apr. 10 by Bd. Educ. (Everett B. Vawter, 122 Main St., Pres.) for erecting a 2 story and basement high school costing $40,000. J. F. Alexander & Son, Archts., 105 N. 4 St., Lafayette.

Munising, Mich.—Following are two lowest bids received Mar. 22 for erecting the 2-story school—(a) stone, (b) brick: A. H. Proksch, Iron River, (a) $30,770, (b) $31,350; A. Victor Carlson, Gwinn, (a) $30,500, (b) $31,156. Lowest bid for plumbing and heating was from R. H. Thoenen, Munising, at $2,175 and $5,850, respectively.

Chicago, Ill.—Bids desired until Apr. 12 by Harbor and Subway Comn. (E. C. Shankland, Chmn.) for erecting a recreation building and shelter, Pier No. 2, Dist. No. 1.

Reported bids desired by Bd. Educ. for erecting addition to Lake View High School; cost $500,000.

Holabird & Roche, Monroe Building, are architects for the 4-story, 287 x 160 ft. steel and reinforced concrete armory to be erected for the First Calvary Illinois Natl. Guard, costing $200,000.

County Archt Erie Hall is reported to have been instructed to prepare plans for the proposed new county jail.

Finance Com. is in favor of erecting 10 elementary school buildings, six to have 24 rooms each and cost $240,000 each, and four 32 rooms each, cost $300,000 each. Ralph C. Otis, Com. on Bldg.

Chicago, Ill.—Bids desired until Apr. 7 by Bd. Educ. for erecting an addition to Lake View High School, including ventilating, heating, plumbing, sewerage, electric work, elevators, etc.

Dixon, Ill.—Co. Bd. Superv. authorized plans prepared for a county home costing $45,000.

Plans submitted to City Council for the Tuberculosis Hospital to be erected on Hamilton Boule.

East St. Louis, Ill.—Lowest bid received for erecting fireproof high school submitted by Kellerman Constr. Co., St. Louis, Mo., at $181,000.

Mt. Carmel, Ill.—Bids reported desired until Apr. 12 by W. H. McClain, Clk. Bd. Superv. for erecting a 2 story and basement infirmary; cost $30,000. Harry E. Boyle & Co., Furniture Exchange, Evansville, Ind., Archts.

Sparta, Ill.—Bids desired until Apr. 7 by Sparta Township High School Bd. Educ. (T. B. Stephenson, Secy.) for erecting a school. N. S. Spencer & Sons, Archts., Champaign.

★**Independence, Wis.**—Contract awarded Mar. 23 for erecting high school to John C. Schneider of Independence for $21,600. O. H. Round, Archt., Oppenheim Bldg., St. Paul, Minn.

Madison, Wis.—City Council reported to be considering erecting a municipal auditorium costing $200,000, to include the city hall.

Superior, Wis.—Reported a 2½-story brick and stone parochial school is to be erected for St. Stanislaus Parish, at a cost of $40,000. Frank Grzywacz, Secy. Bldg. Com.

Scranton, Ia.—Bids reported desired until Apr. 12 by Bd. Educ. (D. J. Dunning, Secy.) for erecting a 2-story and basement, 64 x 128 ft. grade and high school. Trunk & Gordon, Archts., Donnell Court Bldg., St. Joseph, Mo. Probable cost, $35,000.

Waterloo, Ia.—Bids reported desired until Apr. 20 by Independent School Dist. (J. E. Dempster, Secy.) for erecting a 2 story addition to the school; cost $25,000. J. G. Ralston, Archt., Waterloo.

Kenyon, Minn.—Bids desired until Apr. 12 by J. A. Gates, Pres. Bd. Educ., Independent School Dist. No. 91, for erecting a high and grade school, to include heating, plumbing, electrical work and fixtures. Alban & Lockhart, Archts., Endicott Bldg., St. Paul.

Lamberton, Minn.—Bids desired until Apr. 5 by Bd. Educ., Dist. No. 31 (Albert H. Enerson, Clk.), for furnishing material and erecting a new school, including ventilation, heating and plumbing. Kirby T. Snyder, Archt., 643 Plymouth Bldg., Minneapolis.

Madison, Minn.—Bids desired until Apr. 10 by Bd. Armory Supervisors, at office of Capt. A. M. Larson, Madison, for furnishing material and erecting an armory in Madison.

St. Paul, Minn.—Plans being prepared for a 1-story 8-room school to be erected in the Randolph Dist., to cost $45,000. Anthony Yoerg, Comr. of Educ.

Horton, Kan.—Bids reported desired until Apr. 12 by Bd. Educ. for erecting a high school, including heating, plumbing, etc. J. H. Felt & Co., Archts., Kansas City, Mo.

Marysville, Kan.—Bids reported desired until Apr. 7 by Bd. Educ. for erecting a 2 story and basement high school; cost $45,000. N. P. Nielson, Archt., Topeka.

Lawrence, Neb.—Bids desired until Apr. 15 by Bd. Educ. (W. H. McCauley, Secy.) for erecting a school, also for heating and plumbing. W. F. Gernandt, Archt., State Bank Bldg., Omaha.

★**Kearney, Neb.**—Contract for erecting building at State Tubercular Hospital awarded to Walter Knutzen, Kearney, at $32,120.

Grand Forks, N. D.—Bids reported desired until Apr. 27 for erecting first unit of high school, Dist. No. 1; also separately for plumbing, ventilating, heating and electric wiring. W. J. Edwards, Archt., Grand Forks.

Milbank, S. D.—Reported erection of a court house costing $75,000 is under consideration.

El Paso, Tex.—Attorney General has approved $360,000 bond issue for court house and jail. Adrian Pool, Co. Judge.

Ft. Bliss, Tex.—Bids desired until Apr. 30 by Maj. Wm. Elliott, Quartermaster Corps, Depot Q. M., El Paso, for construction, plumbing, heating, etc., a guard house and bakery at Ft. Bliss, Tex., advertised in Engineering Record.

★**Uvalde, Tex.**—Contract for erecting U. S. Post Office awarded to Geo. Hinchliff Co., Chicago, Ill., at $52,400.

★**Greeley, Colo.**—Contract awarded Mar. 22 by Co. Comrs. for erecting a court house to Seerie & Vornum, of Denver, at $138,000. W. N. Bowman, Archt., 915 Central Savings Bank Bldg., Denver.

Davenport, Wash.—Plans for school to be prepared by Archibald Rigg, Peyton Bldg., Spokane; cost $50,000. Address School Bd.

Everett, Wash.—Olson Johnson Co., Missoula, Mont., reported to have submitted lowest bid March 22 to Superv. Archt., Washington, D. C., for erecting the U. S. Post Office at $105,000.

Everett, Wash.—Bids reported desired until Apr. 12 by Bd. School Directors, for erecting 2 2-story reinforced concrete schools, to cost $50,000 and $70,000 respectively.

Olympia, Wash.—The Governor has signed a bill appropriating $1,500,000 for the completion of the Temple of Justice and other buildings here, plans to be prepared by Wilder & White, 50 Church St., New York.

Seattle, Wash.—Plans being prepared by Bebb & Gould, Denny Bldg., for 2 buildings to be erected at the Univ. of Washington and to cost $300,000.

Plans being prepared by School Archt. Edgar Blair, 1426 Jackson St., for a 2-story concrete and brick 8-room addition to Lowell School, 12th St. and Federal Ave., to cost $60,000; 2 wings to B. F. Day School, Fremont and 45th Aves., brick and concrete; cost $50,000.

Plans being prepared for Home Economics Building to be erected at the Univ. of Washington at a cost of $150,000. Address Faculty Com. on Bldgs., Univ. of Washington.

Reported bids desired by Port Comn. for erecting at foot of Marion St. a 4 story office and market building, costing $50,000. L. R. West, Ch. Engr.

★**Sedro Wolley, Wash.**—Contract awarded to D. Dalton, Sedro Wolley for 2-story reinforced concrete library to cost $60,000. Chas. Saunders, Seattle, Archt.

Pendleton, Ore.—Bids desired by State Bd. of Control, Salem, about June 1 for erection of new wing to Eastern Oregon Hospital for Insane; it will be 3 stories, of concrete, and cost $100,000.

Los Angeles, Cal.—Bids desired until Apr. 10 by Bd. Educ. (Wm. A. Sheldon, Clk.) for erecting a school at 71st St. and Compton Ave.; also, same time and place, separate bids for erecting a school at Manchester and Hoover Sts.

Oakland, Cal.—Plans completed by Harbor Comr. Robt. Hennsingen for a concrete warehouse 400x90 ft., which is to be erected for the city on the water front and the Estuary at a cost of $200,000.

San Diego, Cal.—Reported plans for city hall and auditorium to be prepared by Harrison Albright, McLaughlin Bldg., Los Angeles, at a cost of about $500,000.

Galt, Ont.—Citizens voted Mar. 26 to issue bonds for improving hospital.

Duncan, B. C.—Plans completed by the Government Architect for the addition to the court house, to cost about $130,000.

PRIVATE BUILDINGS.

Items Arranged Geographically

Cambridge, Mass.—Olympia Theatre Co. intends erecting in the Central Sq. a fireproof theatre costing $175,000.

★**Malden, Mass.**—Contract for rebuilding the First Baptist Church awarded to Beekman Whidden Co., of Boston. Buildings to cost $150,000. Geo. F. Newton, of Boston, Archt.

★**Springfield, Mass.**—Contract has been awarded for erecting Y. M. C. A. building on Chestnut St. to A. E. Stephens, of Springfield. The new building is to be 7 stories high and have 135 dormitories, 2 gymnasiums and a swimming pool. Architects, Shattuck & Hussey, of Chicago, Ill.

Henry J. Perkins will erect a building on Lyman and Dwight Sts.; also a storage building on Taylor St.

Plans are to be prepared by Geo. P. B. Alderman of Holyoke for a 4-story building which Albert Steiger intends erecting on Bridge and Barnes Sts.

★**Middletown, Conn.**—Contract for erecting the 5-story Central Natl. Bank building reported awarded to C. O. Stone & Co., Inc., Middletown.

Brooklyn, N. Y.—Plans completed by Raymond F. Almirall, 185 Madison Ave., New York, for the Church of the Nativity, which is to be erected at Classon Ave. and Madison St. Rev. John L. Belford, Rector.

Plans prepared for the following buildings: W. T. McCarthy, 16 Court St., for a 4-story apartment house to be erected at 611 Ocean Ave. for Wolfinger & Las-

★*Items marked thus give the names of parties awarded contracts.*

berg, 346 Bway., cost $80,000; M. A. Cantor, 373 Fulton St., 4-story loft building at Atlantic Ave. and Elton St., for Nass & Berg, cost $50,000.

Sass & Springsteen, 32 Union Sq., New York, are preparing plans for a 6-story tenement to be erected at 154 S. 3rd St. for Aaron Segal.

Plans completed by Edw. M. Adelsohn, 1776 Pitkin Ave., for the East New York Market to be erected at Junius St. and Pitkin Ave. at a cost of $50,000 by Morris Koppelman, 1172 Eastern Parkway, and Louis Ruderman, 184 Osborn St.

★**Buffalo, N. Y.**—General contract to erect a 2-story steel, brick and stone church and rectory for the Holy Cross R. C. Church at 7th and Maryland Sts. awarded to Jos. G. Gellanca, 104 Virginia St., and for structural steel to Geo. Kellogg Structural Co., Builders Exchange. Cost $40,000. P. L. Cimini, Archt., 47 Niagara St.

Ft. Wadsworth, Staten Island, N. Y.—Bethlehem Orphans Home at College Point, L. I., operated by the Lutheran churches, it is reported, has secured a site near Ft. Wadsworth, S. I., on which buildings costing $100,000 are to be erected and the home removed there.

Jamaica, L. I., N. Y.—Jacob W. Bossert, of Brooklyn, intends erecting at Homer Lee Ave. and Compton Terrace, Hillside, Jamaica, a 16-room brick and stone residence costing $25,000.

★**New York, N. Y.**—Contract awarded to Fountain & Choate, 110 E. 23d St., for erecting an 8-story fireproof 27 x 90-ft. building at 5th Ave. and 48th St. for Frank Bros., shoe dealers. Cost $50,000. Alfred Freeman, Archt., 29 W. 34th St.

★Contract awarded to Manhattan Constr. Co., 76 William St., for erecting a 12-story brick, limestone and terra cotta store and office building at Madison Ave. and 40th St., for Mrs. Clarence B. Hyde, to be leased to the International Correspondence School. F. E. Townsend, Archt., 103 Park Ave.

Plans being prepared by Wm. B. Birkmire, 1133 Bway., for a 12-story fireproof brick, limestone and terra cotta loft and store building to be erected at 223 W. 38th St.; cost $300,000.

Plans prepared by Cross & Cross, 10 E. 47th St., for a 5-story semi-fireproof brick and limestone apartment house to be erected at 246th St. and Bway., for Augustus Van Courtland Estate.

Plans being prepared for following buildings: By Saas & Springsteen, 32 Union Sq., for two 5-story apartment houses to be erected at 215th St. and Bway. at a cost of $100,000, for L. A. F. Constr. Co., 149 Bway.; Geo. Fred Pelham, 30 E. 42nd St., 12-story apartment house at 2408 Bway., for West Side Constr. Co., cost $200,000; Jas. P. Whiskeman, 30 E. 42nd St., 4-story brick garage at Bway. and 176th St. for Thos. Smith, 2391 Walton Ave., cost $60,000; Moore & Landsiedel, 148th St. and 3rd Ave., two 5-story apartment houses at Burnside and Ryer Aves., for Wm. L. Phelan, 2047 Ryer Ave., cost $100,000.

Plans filed for following buildings: 5-story non-fireproof brick store and apartment house at 207th St. and Vermilyea Ave., for Gustave L. Lawrence, cost $90,000, John Hauser, Archt., 360 W. 125th St.; 5-story brick non-fireproof tenement at 514 W. 192nd St., for Epros Realty Co., cost $60,000, Sommerfeld & Steckler, Archts., 31 Union Sq.; 5-story brick non-fireproof tenement at 180th St. and Audubon Ave., for R. B. Realty Co., cost $75,000, Sass & Springsteen, Archts., 32 Union Sq.; four 5-story brick non-fireproof tenements at Haven Ave. and 181st St. for Chas. Hansle Realty Co., cost $300,000, Moore & Landsiedel, Archts., 148th St. and 3rd Ave.; 4-story brick fireproof garage at Bway. and 176th St. for Thos. Smith, cost $60,000, Jas. P. Whiskeman, Archt., 30 E. 42nd St.; two 5-story brick tenements at Tiffany St. and Whitlock Ave. for Ensign Improv. Co., cost $105,000, Kreymborg Architectural Co., Archts., 1029 E. 163rd St.; two 5-story brick tenements at 187th and Hoffman Sts. for Garibaldi Realty Co., cost $100,000, Lucian Pisciotta, Archt., 391 E. 149th St.; two 5-story brick tenements at 188th St. and Valentine Ave. for H. M. Constr. Co., cost $120,000, Kreymborg Architectural Co., Archts., 1029 E. 163rd St.; three 5-story brick tenements at Bryant Ave. and Alders St. for Turpod Realty Co., cost $105,000, Saml. Katz, Archt., 1 Madison Ave.

Plans completed by Gronenberg & Leuchtag, 303 5th Ave., for two 5-story brick, limestone and granite apartment houses to be erected at Home St. and Longfellow Ave. for Durbar Realty Co., to cost $100,000.

Henry D. Downs has had plans prepared by Jardine, Hill & Murdock, 3 W. 29th St., for a 2-story fireproof theatre to be erected at 135th St. east of Lenox Ave.; cost $45,000.

The Greenwich Village Corporation has leased the property at 723 Greenwich St. and will erect a 6-story building.

Montclair, N. J.—Plans being prepared by John E. Baker, Jr., 74 N. Fullerton Ave., for a 1-story brick and terra cotta store and moving picture theater building to be erected at Bloomfield Ave. and New St., to cost $25,000, for John H. Scott, 78 Midland Ave.

Plans prepared for a stucco and hollow tile community house to be erected for the Watchung Ave. Congregational Church at a cost of $25,000.

Vineland, N. J.—Reported bids desired until Apr. 8 by Junior Order United American Mechanics for erecting a 3-story brick and terra cotta club house according to plans by Paul A. Davis, 3rd, of Philadelphia, Pa.

★**North Wales, Pa.**—Contract for erecting St. Rose R. C. Church at Highland and Pennsylvania Aves. awarded to Ludwig Kaelin, of Lansdale, at about $25,000.

Philadelphia, Pa.—Salvation Army intends erecting on 8th and Vine Sts. a 6-story fireproof building.

Richd. Coogan, 236 S. 21st St., intends erecting on the site an 8-story storage warehouse.

★**Pittsburgh, Pa.**—Contract awarded by Ft. Pitt Hotel Co. to Henry Shenk Co., McKinney Bldg., for erecting a 10-story fireproof warehouse at 11th St. and Liberty Ave., to cost about $160,000.

★Commonwealth Real Estate Co. reported to have awarded to Toupet, Beil & Conley, Oliver Bldg., contract for erecting on Penn Ave. and Whitfield St. a 2-story fireproof commercial garage costing $70,000.

★**Pottstown, Pa.**—Contract awarded to F. H. Keiser, Pottstown, for alterations and additions to bank building for Security Trust Co. Lachman & Murphy, Archts., Philadelphia.

★**Wilkes-Barre, Pa.**—Contract for erecting a 3-story, limestone, fireproof residence for F. J. Weckesser, at 166 S. Franklin St., awarded to Shepherd Constr. Co., Wilkes-Barre. C. P. H. Gilbert, Archt., New York, N. Y.

★**Valley City, Md.**—Contract awarded Mar. 25 for erecting church and Sunday school building to W. J. Curran, of Valley City, at $32,500. E. H. McFarland, Archt. Valley City. Frank White, Chmn. Bldg. Com.

Atlanta, Ga.—The English Lutheran Church is reported to be considering the erection of a new edifice costing $60,000. Plans prepared. Rev. W. C. Schaeffer, Pastor.

Louisville, Ky.—Bids desired until Apr. 19 by Brinton B. Davis, Archt., 1909 Inter-Southern Bldg., for erecting a fireproof office building for the Bd. of Church Extension of the M. E. Church South.

Cincinnati, O.—Rockdale Ave. Temple reported to be considering erecting a synagogue costing $40,000.

Toledo, O.—The Produce Exchange Bldg. is to be remodeled at a cost of $75,000.

★**Youngstown, O.**—Contract for erecting 4-story business building on Hazel and Federal Sts. for Jas. H. McGraw awarded to J. P. Restle & Sheetz, Youngstown.

Clinton, Ind.—Bids reported desired until Apr. 22 by Rev. John D. Kreuwell, Pastor First M. E. Church, for erecting a 1 story and basement edifice costing $40,000. S. R. Badgley, Archt., 307 Euclid Ave., Cleveland, O.

Franklin, Ind.—Dr. O. E. Holloway, of Knightstown, Chmn. Bldg. Com., Indiana Masonic Home, writes that bids will be opened about May 15 for the proposed masonic home to be erected at Franklin, to consist of 6 brick buildings, to cost with equipment $175,000. Architect, Herbert Folt, Indianapolis.

Detroit, Mich.—Plans are being prepared by Mildner & Eisen, Hammond Bldg., for a motion picture theatre to be erected on Warren Ave. and Chene St., at a cost of $350,000 by the Scenic Theatre Co.

★**Champaign, Ill.**—Contract awarded to A. W. Stoolman, of Champaign, for erecting the theatre for C. F. Hamilton; cost $60,000.

Blair, Wis.—Bids reported desired until Apr. 14 for erecting a 2-story and basement bank building for the First National Bank (Ernest A. Peterson, Cashier). Van Deusen & Stevens, Archt., Winona, Minn.

Milwaukee, Wis.—Bids reported desired until Apr. 15 by Kirchoff & Rose, Archts., Majestic Bldg., for erecting a 150x250 ft. 4-story and basement theater, office and store building for the Palace Theater Co. Probable cost, $250,000.

Strum, Wis.—Bids desired until Apr. 15 by Niles Robbe, Secy. Bldg. Com., Norwegian Evangelical Church, for erecting an edifice. S. Jacobson, Archt., St. Paul, Minn.

Kerrick, Minn.—Bids desired until Apr. 6 by the Kerrick State Bank for erecting a bank building. R. J. Willcuts, Archt., Foxboro, Wis.

★**Emporia, Kan.**—Contract for erection of 3-story, brick, stone and concrete Y. M. C. A. building, to cost about $50,000, has been awarded to J. A. Kieffer, of Emporia. Shattuck & Hussey, Archts., 19 S. La Salle St., Chicago, Ill. L. V. Starkey, Secy. Y. M. C. A.

St. Louis, Mo.—The Holbrook-Blackwelder Real Estate Trust Co. is reported interested in the erection of a 10-story hotel on Bway. and Washington St.

★Contract awarded to J. W. Wilson & Son, Odd Fellows Bldg., for erecting a brick and limestone residence for Chas. H. Duncker to cost $60,000. Cann, Corrubia & Huff, Archts., St. Louis.

Longview, Tex.—F. T. Rembart, owner of the White House on Cotton St., intends replacing same with a theatre costing $50,000.

San Antonio, Tex.—See "Railroads."

★**Seattle, Wash.**—Contract for steel work on proposed 10-story office building to be erected for Washington Securities Co., at 3d Ave. and Stewart St., awarded by General Contractors, M. J. Hursen Co., Globe Blk., to J. McArdle, 217 Cedar St. Building complete is to cost about $250,000.

★Contract awarded to J. McArdle, of Seattle, for the steel work on the first unit of the 10 fireproof buildings which the Washington Securities Co. intends erecting at 3rd and 4th Aves. and Stewart and Virginia Sts.

Guelph, Ont.—The Students Co-operative Assoc. of the Ontario Agricultural College are reported to be planning the erection of an apartment house on College Ave. and Dundas Road at a cost of $125,000.

NEW INDUSTRIAL PLANTS.

See also "Private Buildings."

Items Arranged Geographically

Revere, Mass.—Myer Dana, a real estate dealer of Revere, intends erecting a garage on Revere Beach Boule, to cost $42,000.

Watertown, Mass.—The Hood Rubber Co. intends erecting 2 factory additions, to cost $90,000.

Worcester, Mass.—Plans prepared for an addition to be erected at plant of Morgan Spring Co., Greendale.

Brooklyn, N. Y.—Plans being prepared for 6-story loft factory building to be erected adjoining present factory of Levine Bros., Inc., 32 S. 9th St. Cost $80,000.

Buffalo, N. Y.—A brick and steel addition, 112 x 165 ft., is to be erected at the plant of the Fedders Mfg. Co., at Tonawanda St. and West Ave., to cost $30,000.

★Contract for erecting 2-story steel and brick, 56 x 41 ft., addition to factory of Harris Soap Co., Howard and Stetson Sts. and New York Central R.R., has been awarded to Butler & Mills Co., Ellicott Sq. Wood & Bradney, Archts., Mutual Life Bldg.

★Contract awarded to Chas. Berrick Sons Co., 1151 Main St., for erecting brick and structural steel additions to the plant of the W. A. Case & Son Mfg. Co., at Kensington Ave. and New York Central R.R. Belt Line. Colson & Hudson, 35 Dun Bldg., Archts.

★Contract awarded by Curtis Aeroplane Co. to Ferguson Steel & Iron Co., 1399 Bailey Ave., for erecting a steel and concrete manufacturing building, 100x300 ft. on Churchill St. and N. Y. Central R. R. to cost $80,000.

★**Elba, N. Y.**—Contract for erecting concrete, steel and tile building, costing $75,000, for Elba Pure Food Co., awarded to John Lennon Son's Co., Niagara Falls.

Long Island City, L. I., N. Y.—Plans being prepared by John M. Baker, 9 Jackson Ave. for 5-story reinforced concrete factory 50x100 ft. to be erected on Jackson Ave. for the Auto Supply & Equipment Co. Cost $50,000.

Perry, N. Y.—Plans completed by W. A. Kidd, Chamber of Commerce Bldg., Buffalo, and he is also reported receiving bids for a 1-story 60 x 200 ft. factory for the Kaustine Co. to be erected here.

Tempest Knitting Co. intends enlarging the plant on Federal St.

Rensselaer, N. Y.—Wm. Barnet & Son, whose plant was recently destroyed by fire, intend erecting a new plant costing about $300,000.

★**Jersey City, N. J.**—Contract awarded to J. W. Ferguson Co., United Bank Bldg., Paterson, for erecting a 3-story reinforced concrete cigar factory at State St. and Cornelison Ave. for the Parpdo Cigar Co., Inc., New York. Cost $75,000.

Harrisburg, Pa.—Day & Zimmermann, Engrs., 611 Chestnut St., Philadelphia, write bids desired about Apr. 10 for a manufacturing plant for W. O. Hickok Mfg. Co., to include a main shop, 1 and 2 stories, brick, 150 x 263 ft., foundry building, 60 x 140 ft., heating plant and 6 dry kilns and stable; brick, concrete and steel will be used in the construction.

Griffin, Ga.—Johnson Packing Co. incorporated by David S. Johnson, F. M. Binford, and others for the purpose of erecting a packing plant, abattoir, ice factory and canning plant here. Capital $50,000.

★**Bessemer, Ala.**—Reported United States Cast Iron Pipe & Fdry. Co., of Burlington, N. J., has awarded to Virginia Bridge & Iron Co., Roanoke, Va., contract for addition to pipe and foundry plant at Bessemer. It is stated that about 1000 tons of structural steel will be needed in the building.

Fort Payne, Ala.—Plans and specifications prepared by H. L. Huntington, of Chattanooga, Tenn., for a 1-story, 64 x 150 ft., brick mill, which Davis Hosiery Mills of Chattanooga, Tenn., intends erecting here as a branch plant.

Cleveland, O.—Richman Bros. Co. 1289 W. 9th St. will erect on E. 55th St. a brick and reinforced concrete fireproof factory to cost $250,000.

Plans are being prepared by Prack & Perrien, Keystone Bldg., Pittsburgh, Pa. for an 8-story brick, steel and concrete pattern building 200x150 ft. which the Westinghouse Electric & Mfg. Co., W. 58th St. and N. Y. Central R. R. will erect at a cost of $300,000.

Cumminsville, O.—Pneumatic Tire Co. incorporated for the purpose of erecting a plant here for the manufacture and marketing of a new tire. John Dudley is one of the incorporators. Capital $100,000.

Evansville, Ind.—Blount Plow Co. will erect a $200,000 factory here.

★**East St. Louis, Ill.**—Contract awarded to Woermann Constr. Co., 543 Century Bldg., St. Louis, Mo., for erecting a 5 story steel and concrete sheep killing and dressing room building for Armour & Co.

Wausau, Wis.—Site selected on which Farmers Co-operative Packing Co. (M. B. Rosenberry, Pres.), intends erecting plant according to plans by Gardner & Lindberg. Cost $100,000.

Faribault, Minn.—The Chase Packing Co. will erect new buildings at a cost of $100,000.

Litchfield, Minn. — Litchfield Woolen Mills Co. intends rebuilding the plant recently destroyed by fire.

★**Centralia, Wash.**—Contract awarded to N. E. Greenleaf, Centralia, for erecting a concrete milk pasteurizing plant for the Purity Milk Products Refrigerating Co. Cost $50,000.

Seattle, Wash.—Reported plans being prepared for an addition which the Pacific Coast Steel Co. intends erecting near here for the Seattle Car & Fdry. Co., of which Wm. Piggott, Alaska Bldg., is Pres.

Tacoma, Wash.—Reported Ragle Macaroni Mfg. Co's plant destroyed by fire is to be rebuilt.

Los Angeles, Cal.—The Neptune Meter Co., 90 West St., New York, intends erecting at 3d and Alameda Sts. a 5-story reinforced concrete, 112 x 132 ft., plant, costing $135,000. John F. Blee, Archt.

Oakland, Cal.—Bids reported being received for erecting a 4-story reinforced concrete building for the Shredded Wheat Biscuit Co., to cost $300,000. L. P. Hobart, Archt., Crocker Bldg., San Francisco, Cal.

MISCELLANEOUS.

See also "Hydraulic Construction and River Improvements."

Items Arranged Geographically

★**Cement — Boston, Mass.** — Contract awarded Mar. 16 by Supt. City Supplies for about 5000 bbls. Portland cement, to J. P. O'Connell & Co., at $1.65 per bbl.

★**Cement—Springfield, Mass.**—Contract awarded by Bd. Supervisors Mar. 26 for the season's supply of cement for the Street Dept. to the Springfield Contractors' Supply Co., Springfield, at $1.50 per bbl., delivered at city yard, and to Knickerbocker Portland Cement Co., New York, at $1.62 per bbl., delivered in carload lots at city yard. In each case 10 cts. to be allowed for bbls. returned.

Elevators—Newport, R. I.—Bids desired until Apr. 17 at Bureau Yards and Docks, Navy Dept., Washington, D. C. (H. R. Stanford, Ch.) for Spec. 2146—2 hydro-pneumatic elevators for the assembly and machine shops at the Naval Torpedo Station, Newport.

★**Elevators—New York, N. Y.**—Contract awarded Mar. 18 by Dept. of Bridges (F. J. H. Kracke, Comr.) for constructing an additional elevator in the North Tower of the Queens Anchor Pier of the Queensboro Bridge, to Winkler Constr. Co., Inc., 41 Park Row, at $7,190.

Laundry Building Equipment—Sonyea, N. Y.—Bids desired until Apr. 13 by Percy L. Lang, Pres. Bd. Mgrs., Craig Colony for Epileptics, Sonyea, for laundry building equipment at the said institution, advertised in Engineering Record. Lewis F. Pilcher, State Archt., Albany.

★**Grand Stand, Etc.—Harrison, N. J.**—Contract awarded to W. P. Ellison, Inc., 29 W. 34th St., New York, for the grandstand bleachers and fence for new Federal League Ball Park in Harrison; approximate cost $85,000. Architect, C. B. Comstock, 110 W. 40th St., New York.

★**Broken Stone for Light Station—Philadelphia, Pa.**—Contract awarded by the Lighthouse Inspector, Philadelphia, Pa., for furnishing and depositing 1000 tons of broken stone and 2100 tons of rip-rap at Brandywine Shoal Light Station, Delaware Bay, to Coast & Lakes Contr. Cor., 41 Broad St., New York, at $8,959 (bids opened Mar. 11).

★**Cement — Pittsburgh, Pa.** — Contract awarded Mar. 26 for furnishing 15,000 bbls. Portland cement to Universal Portland Cement Co., Frick Bldg., Pittsburgh. R. J. Cunningham, Co. Controller.

★*Items marked thus give the names of parties awarded contracts.*

Swimming Pool—Baltimore, Md.—Bids desired until Apr. 7 by Bd. of Awards, care of City Register, for constructing concrete swimming pool at Clifton Park.

Cable—Washington, D. C.—Bids desired until Apr. 20 by Capt. Chas. S. Wallace, Signal Corps, U. S. A., for furnishing 12 miles intermediate cable special; 15 miles intermediate cable, type 44; 50 miles deep sea cable, type 45 and 50 miles deep sea cable, special.

Boat—Wheeling, W. Va.—Bids desired until Apr. 29 by Maj. T. H. Jackson, Corps Engrs., U. S. A., Wheeling, for one service boat for Lock No. 10, Kanawha River, W. Va., advertised in Engineering Record.

Iron Castings, Brick, Lime, Cement, etc.—Charleston, S. C.—Bids desired until Apr. 20 by J. H. Dingle, City Engr., for furnishing for the year 1915 the following: Iron castings, brick, lime and Portland cement, lumber, curbing, terra cotta pipe, constructing sidewalks, etc.

Subway—Alliance, O.—See "Railroads."

Park Work—Gary, Ind.—The cities of Gary, Miller, Hobart, East Chicago and East Gary are reported interested in the formation of a joint park district for the creation of a lake front park and boulevard system. The new park will be located at Miller and cost $200,000.

Electric Light Plant—Pratt, Kan.—Bids desired until Apr. 20 by City Clerk for constructing an electric light plant, advertised in Engineering Record. E. T. Archer & Co., Consulting Engrs., 406 New England Bldg., Kansas City, Mo.

Dump Truck, Etc.—Galveston, Tex.—Bids desired until Apr. 8 by Bd. City Comrs., for furnishing and delivering a 2-ton automatic dump truck with traction coupler, operated either by electricity or gasoline power; also a standard automatic pressure or gravity sprinkling truck, equipped with 800 to 1200 gals. sprinking tank operated either by electricity or gasoline power.

Hoist—Bremerton, Wash.—Bids desired it is reported, until Apr. 20 by Bureau of Supplies and Accounts, Navy Dept., Washington, D. C., for electric driven derrick hoist, Specification 8065, at Puget Sound Navy Yard, Wash.

Cement—Westmount, Que.—See "Sewerage and Sewage Disposal."

Valves, etc.—Panama—Bids desired until Apr. 26 by Maj. F. C. Boggs, Corps Engrs., U. S. A., Genl. Purchasing Officer, Panama Canal, Washington, D. C., for Cir. 911—Regulating valves, machines, motors, starting panels and limit switches for locks.

Proposals

For Proposals Advertised see Pages 48, 49, 50 and 51.

WATERWORKS.

Bids Close.		See Eng. Record.
Apr. 6.	Pump. Station and Pump, Lynchburg, Va. Adv. Mar. 20, 27.	Mar. 20
Apr. 6.	Water Service, Davenport, Ia.	Apr. 3
Apr. 6.	Tower and Tank, Middleboro, Mass.	Apr. 3
Apr. 7.	Improv., Omaha, Neb.	Apr. 3
Apr. 8.	Water Works, McCune, Kan.	Mar. 13
Apr. 8.	Steel Forms for Tunnel, Cleveland, O.	Apr. 3
Apr. 8.	Water Wheel, Cincinnati O.	Apr. 3
Apr. 9.	Mains, San Bernardino, Cal.	Apr. 3
Apr. 9.	Water Line System, Clinton, N. J.	Apr. 3
Apr. 12.	Laying Mains, Cicero, Ill.	Mar. 27
Apr. 12.	Water Wks., Southport, N. C.	Apr. 3
Apr. 12.	Pumps and Condensers, East Orange, N. J.	Apr. 3
Apr. 13.	Valves. Toronto, Ont. Adv. Feb. 20 to Mar. 6.	Feb. 20
Apr. 13.	Laying Pipe, Laramie, Wyo.	Mar. 27
Apr. 13.	Pipe Line, Ogden, Utah.	Apr. 3
Apr. 13.	Pipe, Toronto, Ont.	Apr. 3
Apr. 14.	Water Wks., Barker, N. Y. Adv. Mar. 27.	Mar. 27
Apr. 15.	Wells, Winona, Minn. Adv. Mar. 13.	Mar. 13
Apr. 15.	System, East New Market, Md. Adv. Mar. 27.	Mar. 27
Apr. 15.	Water Works, Morning Sun, Ia.	Mar. 27
Apr. 15.	System, Edina, Mo.	Apr. 3
Apr. 15.	Meters, Portland, Ore.	Apr. 3
Apr. 16.	Water Wks., Vivian, La.	Apr. 3
Apr. 16.	Filter, Pump, Etc., Chillicothe, Mo.	Apr. 3
Apr. 18.	Pipe, Etc., Panama.	Apr. 3
Apr. 19.	Water Works Material, Jefferson, Ga.	Mar. 20
Apr. 19.	Mains, Cleveland Heights, O.	Mar. 27
Apr. 19.	Tunnel Work, Milwaukee, Wis. Adv. Apr. 3.	Apr. 3
Apr. 19.	System, Kirkland, Wash.	Apr. 3
Apr. 19.	System, Peoria Heights, Ill.	Apr. 3
Apr. 20.	Water Wks., Fordyce, Neb.	Apr. 3
Apr. 20.	C.-I. Pipe, Sacramento, Cal. Adv. Mar. 27, Apr. 3.	Mar. 27
Apr. 21.	Pump. Sta. Equip., Durham, N. C. Adv. Mar. 27, Apr. 3.	Mar. 27
Apr. 21.	Water Wks. Improv., Durham, N. C. Adv. Mar. 27, Apr. 3.	Mar. 27
May 5.	Centrifugal Pump, Kansas City, Mo. Adv. Mar. 20 to Apr. 3.	Mar. 20
May 15.	Pumping Station, Binghamton, N. Y. Adv. Apr. 3.	Apr. 3

SEWERAGE AND SEWAGE DISPOSAL.

Bids Close.		See Eng. Record.
Apr. 6.	Oaklyn, N. J. Adv. Mar. 27.	Mar. 27
Apr. 6.	Oshkosh, Wis.	Mar. 27
Apr. 6.	Alliance, O.	Mar. 20
Apr. 6.	Hamilton, Ont.	Apr. 3
Apr. 7.	Fitchburg, Mass. Adv. Mar. 20, 27.	Mar. 20
Apr. 7.	Postville, Ia.	Mar. 27
Apr. 8.	Cleveland, O.	Apr. 3
Apr. 8.	**Clarinda, Ia.**	**Apr. 3**
Apr. 8.	Jersey City, N. J.	Apr. 3
Apr. 8.	Spokane, Wash.	Apr. 3
Apr. 9.	Salem, O.	Mar. 20
Apr. 9.	Brooklyn, N. Y.	Apr. 3
Apr. 9.	Madison, Wis.	Apr. 3
Apr. 9.	Clinton, N. J.	Apr. 3
Apr. 9.	Marion, O.	Apr. 3
Apr. 10.	Ravena, N. Y. Adv. Mar. 27, Apr. 3.	Mar. 27
Apr. 12.	San Antonio, Tex.	Mar. 27
Apr. 12.	Southport, N. C.	Apr. 3
Apr. 13.	**St. Cloud, Minn.**	**Apr. 3**
Apr. 13.	Toronto, Ont.	Apr. 3
Apr. 14.	Baltimore, Md. Adv. Mar. 27.	Mar. 27
Apr. 15.	State Center, Ia.	Mar. 27
Apr. 16.	Janesville, Wis.	Mar. 27
Apr. 17.	Annville, Pa. Adv. Mar. 27, Apr. 3.	Mar. 27
Apr. 19.	Jefferson, Ga.	Mar. 20
Apr. 19.	New Orleans, La.	Mar. 6
Apr. 19.	San Antonio, Tex.	Mar. 27
Apr. 19.	Cleveland Heights, O.	Mar. 27
Apr. 19.	Greenville, Pa.	Mar. 27
Apr. 19.	Greenville, Pa. Adv. Apr. 3.	Apr. 3
Apr. 24.	Little Rock, Ark.	Apr. 3
Apr. 28.	Clinton, S. C.	Apr. 3

BRIDGES.

Bids Close.		See Eng. Record.
Apr. 6.	Colusa, Cal.	Mar. 13
Apr. 6.	Lake Charles La.	Mar. 20
Apr. 6.	Ypsilanti N. D.	Mar. 20
Apr. 6.	Clearwater, Fla.	Mar. 27
Apr. 6.	Jackson, Mich.	Mar. 27
Apr. 6.	Smithfield, W. Va.	Apr. 3
Apr. 6.	Troy, N. Y.	Apr. 3
Apr. 6.	Jackson, Mich.	Apr. 3
Apr. 6.	Durham, N. C.	Apr. 3
Apr. 7.	New Hampton, Ia.	Mar. 6
Apr. 7.	Sibley Ia.	Mar. 20
Apr. 7.	Columbus O.	Mar. 20
Apr. 7.	Visalia, Cal.	Mar. 20
Apr. 7.	Hanford, Cal.	Mar. 27
Apr. 7.	Illinois	Mar. 27
Apr. 7.	Benton Harbor, Mich. Adv. Mar. 27.	Mar. 27
Apr. 7.	Santa Ana, Cal.	Apr. 3
Apr. 8.	Painting Bridges, Jersey City, N. J.	Mar. 27
Apr. 6.	Boulder, Mont.	Apr. 3
Apr. 8.	Crown Point, Ind.	Apr. 3
Apr. 9.	Ft. Payne, Ala.	Mar. 27
Apr. 9.	St. Louis, Mo.	Apr. 3
Apr. 9.	Evansville, Ind.	Apr. 3
Apr. 10.	Newport, R. I.	Mar. 27
Apr. 10.	Bala, Ont.	Apr. 3
Apr. 12.	Rockport, Mo.	Mar. 27
Apr. 12.	Marysville, Wash.	Mar. 27
Apr. 12.	Camden, N. J.	Mar. 27
Apr. 12.	Columbus, Mont.	Apr. 3
Apr. 12.	Robert Lee, Tex.	Apr. 3
Apr. 12.	Stillwater, Mont.	Apr. 3
Apr. 13.	Bryan, O.	Mar. 27
Apr. 13.	Easton, Md. Adv. Apr. 3.	Apr. 3
Apr. 13.	Zachary, La.	Apr. 3
Apr. 14.	Cleveland, O.	Mar. 27
Apr. 14.	Canton, O.	Apr. 3
Apr. 15.	Tavares, Fla.	Mar. 13
Apr. 15.	Windom, Minn.	Apr. 3
Apr. 17.	Hamilton, O.	Mar. 27
Apr. 19.	Danville, Ind.	Apr. 3
Apr. 21.	Goshen, Ala.	Apr. 3
Apr. 26.	Circleville, O.	Apr. 3
Apr. 27.	Leitchfield, Ky.	Mar. 27

PAVING AND ROADS.

Bids Close.		See Eng. Record.
Apr. 6.	Spokane, Wash.	Mar. 6
Apr. 6.	Lake Charles, La.	Mar. 13
Apr. 6.	Sharon, Pa. Adv. Mar. 20, 27.	Mar. 20
Apr. 6.	Indiana	Mar. 20
Apr. 6.	Marshall, Tex.	Mar. 27
Apr. 6.	Oconomowoc, Wis.	Mar. 27
Apr. 6.	Potton, Que.	Mar. 27
Apr. 6.	Newark, O.	Mar. 27
Apr. 6.	Indiana	Mar. 27
Apr. 6.	Paterson, N. J.	Mar. 27
Apr. 6.	Bayonne, N. J. Adv. Mar. 27, Apr. 3. (4 Proposals)	Mar. 27
Apr. 6.	Massachusetts	Apr. 3
Apr. 6.	Columbia, S. C.	Apr. 3
Apr. 6.	Ft. Worth, Tex.	Apr. 3
Apr. 6.	South Orange, N. J.	Apr. 3
Apr. 6.	Auburn, N. Y.	Apr. 3
Apr. 6.	Indiana	Apr. 3
Apr. 6.	Kansas City, Mo.	Apr. 3
Apr. 7.	Alabama	Mar. 13
Apr. 7.	Gold Hill, Ore.	Mar. 20
Apr. 7.	Marinette, Wis.	Mar. 20
Apr. 7.	Asphalt Plant, Harrisburg, Pa. Adv. Mar. 27.	Mar. 27
Apr. 7.	Indiana	Mar. 27
Apr. 7.	Illinois	Apr. 3
Apr. 7.	Sharon Hill, Pa.	Apr. 3
Apr. 7.	Long Island City, N. Y.	Apr. 3
Apr. 7.	Bryan, Tex.	Apr. 3
Apr. 7.	Cleveland, O.	Apr. 3
Apr. 7.	Fairfax, Va.	Apr. 3
Apr. 7.	Brooklyn, N. Y.	Apr. 3
Apr. 7.	Greenford, O.	Apr. 3
Apr. 7.	Manhattan Beach, Cal.	Apr. 3
Apr. 8.	Fargo, N. D.	Mar. 27
Apr. 8.	Jersey City, N. J.	Mar. 27
Apr. 8.	Road Graders, Brownstown, Ind.	Mar. 27
Apr. 8.	Ottawa, Kan.	Apr. 3
Apr. 8.	Louisville, Ky.	Apr. 3
Apr. 8.	Fargo, N. D.	Apr. 3
Apr. 8.	Clarinda, Ia.	Apr. 3
Apr. 8.	Beloit, Wis.	Apr. 3
Apr. 8.	Jacksonville, Fla.	Apr. 3
Apr. 8.	Ogden, Utah	Apr. 3
Apr. 8.	Racine, Wis.	Apr. 3
Apr. 9.	Cincinnati, O.	Mar. 20
Apr. 9.	Mt. Gilead, O.	Mar. 27
Apr. 9.	Paris, Ill.	Mar. 27
Apr. 9.	Oswego, N. Y. Adv. Apr. 3.	Apr. 3
Apr. 9.	Cleveland, O.	Apr. 3
Apr. 9.	Hutchinson, Kan.	Apr. 3
Apr. 9.	Chicago, Ill.	Apr. 3
Apr. 9.	Marion, O.	Apr. 3
Apr. 10.	Curtis, Wash.	Mar. 27
Apr. 10.	Louisiana	Apr. 3
Apr. 10.	Charleston, W. Va.	Apr. 3
Apr. 10.	Indiana	Apr. 3
Apr. 10.	McPherson, Kan.	Apr. 3
Apr. 10.	Tiffin, O.	Apr. 3
Apr. 12.	Painesville, O.	Mar. 27
Apr. 12.	Houston, Tex.	Mar. 27
Apr. 12.	Montclair, N. J. Adv. Mar. 27, Apr. 3.	Mar. 27
Apr. 12.	Road Oil, Montclair, N. J. Adv. Mar. 27, Apr. 3.	Mar. 27
Apr. 12.	Sharpsburg, Pa.	Apr. 3
Apr. 12.	Bowling Green, O.	Apr. 3
Apr. 12.	Camden, N. J.	Apr. 3
Apr. 12.	Brockton, Ill.	Apr. 3
Apr. 12.	Bakersfield, Cal.	Apr. 3
Apr. 13.	Easton, Md.	Apr. 3
Apr. 13.	Ogden, Utah	Apr. 3
Apr. 13.	New York, N. Y.	Apr. 3
Apr. 13.	Hamilton, Ala.	Apr. 3
Apr. 13.	Hartford, Conn. Adv. Apr. 3.	Apr. 3
Apr. 13.	Maryland	Apr. 3
Apr. 14.	Albany, N. Y. Adv. Mar. 27, Apr. 3.	Mar. 27
Apr. 14.	Dover, O.	Apr. 3
Apr. 14.	New Philadelphia, O.	Apr. 3
Apr. 14.	Toledo, O.	Apr. 3
Apr. 15.	Tavares, Fla.	Mar. 13
Apr. 15.	Coshocton, O.	Apr. 3
Apr. 16.	Forest City, Ia.	Mar. 20
Apr. 16.	Forest City, Ia.	Mar. 27
Apr. 16.	Nova, O.	Apr. 3
Apr. 16.	Walker, Minn.	Apr. 3
Apr. 19.	Alabama	Mar. 13
Apr. 19.	Sanford, Fla.	Apr. 3
Apr. 19.	Oil Distributor, Etc., Minneapolis, Minn.	Apr. 3
Apr. 19.	Montesano, Wash.	Apr. 3
Apr. 20.	Albany, N. Y. Adv. Apr. 3.	Apr. 3
Apr. 20.	Redmond, Wash.	Apr. 3
Apr. 23.	Cincinnati, O.	Apr. 3
Apr. 23.	Prairie du Chien, Wis.	Apr. 3
Apr. 24.	La Crosse, Wis.	Apr. 3
Apr. 26.	Marble Cliff, O.	Apr. 3
Apr. 29.	Nashville, Tenn.	Apr. 3
Apr. 30.	Coldwater, Mich.	Apr. 3
Apr. 30.	Walla Walla, Wash.	Apr. 3
May 1.	Kingston Station, Wilkes-Barre, Pa.	Mar. 27

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Bids Close.		See Eng. Record.
Apr. 5.	Power House, Etc., at Dam, Pittsburgh, Pa. Adv. Mar. 13 to Apr. 3.	Mar. 13
Apr. 7.	Ditch, Bloomfield, Mo.	Mar. 20
Apr. 7.	Wharf, New Orleans, La.	Apr. 3
Apr. 8.	Irrigation Work, Payson City, Utah Adv. Mar. 13.	Mar. 13
Apr. 8.	Drainage, Dresden, Tenn.	Mar. 20
Apr. 10.	Drainage, Greenfield, Ont.	Mar. 27
Apr. 10.	Irrigation Work, Harlingen, Tex.	Apr. 3
Apr. 10.	Wharf, Halifax, N. S.	Apr. 3
Apr. 12.	Steel Gates for Locks, Nashville, Tenn. Adv. Mar. 13 to Apr. 3.	Mar. 13
Apr. 12.	Drainage System, Union City, Tenn.	Apr. 3
Apr. 14.	Timber Crib, etc., Buffalo, N. Y.	Apr. 3
Apr. 15.	Dredging, Buffalo, N. Y. Adv. Mar. 20 to Apr. 3.	Mar. 20
Apr. 15.	Dredge, Lynn Haven, Fla.	Apr. 3
Apr. 20.	Dredging, Hartford City, Ind.	Mar. 27
Apr. 20.	River Improvement, Tiffin, O. Adv. Apr. 3.	Mar. 27
Apr. 20.	Seawall, Seattle, Wash.	Apr. 3
Apr. 20.	River Improvement, Tiffin, O.	Apr. 3
Apr. 23.	Flood Protection Work, Indianapolis, Ind.	Mar. 20
Apr. 26.	Valves, Etc., for Locks, Panama Adv. Apr. 3.	Apr. 3
Apr. 26.	Reconstructing Dam, Maietta, O.	Apr. 3
May 3.	Dredging, New Orleans, La. Adv. Apr. 3	Apr. 3

PUBLIC BUILDINGS AND SCHOOLS.

Bids Close.		See Eng. Record.
Apr. 6.	Live Oak, Fla.	Feb. 27
Apr. 6.	Ridgeland, S. C.	Mar. 13
Apr. 6.	Edinburg, O.	Mar. 13
Apr. 6.	Wilkesboro, N. C.	Mar. 20
Apr. 6.	New Brunswick, N. J.	Mar. 20
Apr. 6.	Nashville, Tenn.	Mar. 20
Apr. 6.	Tioga, La.	Apr. 3
Apr. 7.	Wilmington, Del. Adv. Mar. 27, Apr. 3.	Mar. 27
Apr. 7.	Sparta, Ill.	Apr. 3
Apr. 7.	Marysville, Kan.	Apr. 3
Apr. 7.	Chicago, Ill.	Apr. 3
Apr. 8.	Berlin Center, O.	Mar. 20
Apr. 8.	Hammond, Ind.	Apr. 3
Apr. 9.	Ben Davis, Ind.	Apr. 3
Apr. 10.	Newport, R. I.	Mar. 27
Apr. 10.	Havre, Mont.	Mar. 27
Apr. 10.	Columbiana, O.	Apr. 3
Apr. 10.	West Lafayette, Ind.	Apr. 3
Apr. 10.	Los Angeles, Cal.	Apr. 3
Apr. 12.	Bath, N. Y. Adv. Mar. 27.	Mar. 27
Apr. 12.	Cincinnati, O.	Mar. 13
Apr. 12.	Kenyon, Minn.	Apr. 3
Apr. 12.	Horton, Kan.	Apr. 3
Apr. 12.	Chicago, Ill.	Apr. 3
Apr. 12.	Bath, N. Y. Adv. Mar. 27, Apr. 3.	Mar. 27
Apr. 12.	Scranton, Ia.	Apr. 3
Apr. 12.	Mt. Carmel, Ill.	Apr. 3
Apr. 12.	Everett, Wash.	Apr. 3
Apr. 12.	Plans, Wilmington, Del.	Apr. 3
Apr. 13.	Morrall, O.	Mar. 20
Apr. 13.	Industry, N. Y. Adv. Mar. 20 and 27.	Mar. 20
Apr. 13.	Nashville, Tenn.	Apr. 3
Apr. 14.	Lowell, O.	Mar. 27
Apr. 14.	Dayton, O.	Mar. 27
Apr. 14.	Greystone Park, N. J.	Apr. 3
Apr. 15.	Chillicothe, O.	Mar. 27
Apr. 15.	Lakewood, O.	Mar. 27
Apr. 15.	Omaha, Neb.	Mar. 27
Apr. 15.	Lawrence, Neb.	Apr. 3
Apr. 15.	Conyers, Ga.	Apr. 3
Apr. 17.	Indian Head, Md.	Apr. 3
Apr. 19.	Jacksonville, Fla.	Mar. 27
Apr. 19.	Corpus Christi, Tex.	Mar. 20
Apr. 19.	Toledo, O.	Mar. 27
Apr. 19.	Madison, Minn.	Apr. 3
Apr. 19.	Newark, N. J.	Apr. 3
Apr. 19.	Wilmington, N. C.	Apr. 3
Apr. 20.	Douglas, Wyo.	Mar. 27
Apr. 20.	Alliance, O.	Mar. 27
Apr. 20.	Portland, Me.	Mar. 20
Apr. 20.	Gloucester, N. J. Adv. Mar. 27, Apr. 3.	Mar. 27
Apr. 20.	Waterloo, Ia.	Apr. 3
Apr. 22.	Vandalia, O.	Apr. 3
Apr. 22.	McKeesport, Pa.	Apr. 3
Apr. 22.	New York, N. Y.	Apr. 3
Apr. 23.	Toledo, O.	Mar. 20
Apr. 24.	Troy, O.	Apr. 3
Apr. 26.	New York, N. Y. Adv. Apr. 3.	Apr. 3
Apr. 26.	Lancaster, O.	Apr. 3
Apr. 27.	Grand Forks, N. D.	Apr. 3
Apr. 28.	Ardmore, Okla.	Mar. 27
Apr. 30.	Ft. Bliss, Tex. Adv. Apr. 3	Apr. 3
June 1.	Harrisburg, Pa.	Mar. 13

PRIVATE BUILDINGS.

Bids Close.		See Eng. Record.
Apr. 6.	Kerrick, Minn.	Apr. 3
Apr. 8.	Vineland, N. J.	Apr. 3
Apr. 9.	Freeport, Pa.	Mar. 27
Apr. 14.	Blair, Wis.	Apr. 3
Apr. 15.	Strum, Wis.	Apr. 3
Apr. 15.	Milwaukee, Wis.	Apr. 3
Apr. 19.	Louisville, Ky.	Apr. 3
Apr. 22.	Clinton, Ind.	Apr. 3

NEW INDUSTRIAL PLANTS.

Bids Close.		See Eng. Record.
Apr. 23.	St. Louis, Mo.	Mar. 27

MISCELLANEOUS.

Bids Close.		See Eng. Record.
Apr. 6.	Wire, Fencing, Etc., Ogden, Utah	Mar. 13
Apr. 6.	Electric Light Plant Improvement, Kinston, N. C. Adv. Mar. 20 to Apr. 3.	Mar. 20
Apr. 6.	Railroads, Alliance, O.	Apr. 3
Apr. 6.	Subway, Alliance, O.	Apr. 3
Apr. 7.	Steel, Iron, Etc., Panama	Mar. 27
Apr. 7.	Swimming Pool, Baltimore, Md.	Apr. 3
Apr. 8.	Dump Truck, Etc., Galveston, Tex.	Apr. 3
Apr. 9.	El. Rys., Routes 4 and 36. New York, N. Y.	Mar. 20
Apr. 9.	Cables, Cleveland, O.	Apr. 3
Apr. 10.	Competition for Entrance to Schenley Park, Pittsburgh, Pa.	Mar. 27
Apr. 10.	Cranes, Etc., Newport, R. I.	Mar. 27
Apr. 10.	Manila Bolt Rope, Memphis, Tenn. Adv. Mar. 27, Apr. 3.	Mar. 27
Apr. 10.	Galvanized Wire, Wire Rope, Etc., Memphis, Tenn. Adv. Mar. 27, Apr. 3.	Mar. 27
Apr. 13.	Stone, New Orleans, La.	Mar. 20.
Apr. 13.	Laundry Bldg. Equipment, Sonyea, N. Y. Adv. Apr. 3.	Apr. 3
Apr. 17.	Elevators, Newport, R. I.	Apr. 3
Apr. 19.	Cement for Dam Work, Louisville, Ky. Adv. Mar. 27, Apr. 3.	Mar. 27
Apr. 20.	El. Ry., Sect. 2, Route 12, Brooklyn, N. Y. Adv. Mar. 27, Apr. 3.	Mar. 27
Apr. 20.	Electric Light Plant, Pratt, Kan. Adv. Apr. 3.	Apr. 3
Apr. 20.	Iron Castings, Brick, Cement, Etc., Charleston, S. C.	Apr. 3
Apr. 20.	Hoist, Bremerton, Wash.	Apr. 3
Apr. 20.	Cable, Washington, D. C.	Apr. 3
Apr. 26.	Valves, Etc., Panama	Apr. 3
Apr. 20.	Boat, Wheeling, W. Va. Adv. Apr. 3.	Apr 3

★Items marked thus give the names of parties awarded contracts.

New Construction Activities

During the first quarter of 1915 fabricating shops took orders for steel bridges, buildings, etc., calling for 185,000 tons of structural shapes. This is a decrease of 54 per cent as compared with the business booked in the first quarter of last year, which was 408,000 tons. It is encouraging to note, however, that 75 per cent, or 106,000 tons of the business booked so far this year was placed in March. Steel ordered in the first quarter for export totaled about 1,000,000 tons. Orders from the railroads during this period amounted to slightly less, and are still falling off. The total output of the steel industry for the first quarter is estimated at 3,550,000 tons. The industry is still operating at over 70 per cent of capacity and another satisfactory month is in prospect for April.

Building permits in New York during the first quarter of this year showed a 23 per cent increase over 1914, and March building permits in Seattle practically doubled the value of those issued in the same city during February.

Buildings

Bond issues passed at the Chicago election of April 6 carry nearly $4,000,000 for building construction. Building work continues more active. An addition to a steel plant at Youngstown, Ohio, has been contracted for at $1,000,000. The Remington Arms Company has let a $600,000 contract for additions to their factory at Ilion, N. Y. A $150,000 library has been contracted for at Warren, Pa. It is reported from Chicago that a large company is preparing plans and specifications for ship building plants to be located on the Atlantic coast which will cost $5,000,000. The Philadelphia Board of Education recently sold school bonds to the sum of $2,000,000. Bids are desired on a $220,000 hotel at Atlantic City. A permit has been taken out in Philadelphia for erecting a $500,000 private school. Plans are being prepared for a $400,000 school at Buffalo. Plans are also being prepared for a $600,000 office building in Seattle. A $300,000 hospital is projected in New York, and it is reported from Cleveland that the erection of a $500,000 building is being considered by the Case School of Applied Science.

Bridges and Roads

A contract for constructing the River Street viaduct of the Northern Pacific Railway at Tacoma has been awarded. Bids are desired on bridge work at Columbus and at Tiffin, Ohio. Plans for three bridges in Rome County, Ga., to cost over $250,000, have been approved. It is reported from Salt Lake City that the Denver and Rio Grande will rebuild the bridge across Bingham Canyon, and that the Oregon short line will construct a $120,000 viaduct on N. Temple Street. Plans have been forwarded to the War Department at Washington for approval of the projected 1100-ft.-span bridge over the Ohio River at McKees Rocks.

A large number of small paving contracts were awarded last week, including items under Charleston, W. Va.; Columbus, Miss., and Seattle. Bids on road work totaling $53,000 were opened in Illinois, and bids on a $38,000 contract were opened in Baltimore. Bids are desired on a $75,000 contract at Findlay, Ohio. Bids are desired on 9 miles of road at Sturgeon Bay, Wis., and Louisville, Ky., desires bids on 1,000,000 sq. yd. of paving. The highway bureau of Philadelphia is preparing plans for paving work which will total $1,800,000, and which will probably be let this spring. Wilmington, Del., has voted to issue $500,000 bonds for paving. A number of smaller bond issues have been sold, including $250,000 at Pine Hill, Ky., $108,000 at Sandusky, Ohio, and $160,000 at Sheridan, Ark.

Waterworks and Sewers

The lowest bids opened at Toledo for the high pressure pumping station there totaled over $160,000. Sharon, Pa., has contracted for the construction of a filtration plant. Bids are desired on a reservoir at Fostoria, Ohio, and on a waterworks system at Manning, S. C. The Mayor of Cleveland, Ohio, has approved an ordinance appropriating $1,500,000 for waterworks purposes; $500,000 of this sum will be expended at the Baldwin reservoir. It is reported that the water company at Hagerstown, Md., will spend upwards of $500,000 in constructing a new reservoir and making other improvements.

Bids will soon be asked at Indianapolis, Ind., on $248,000 worth of sewer construction, and a large contract was awarded by this city last week. It is reported that Philadelphia will soon ask for bids on additional sewer construction to cost $350,000. Rochester, N. Y., desires bids on a $100,000 sewage disposal plant, and the lowest bid opened on the sewer tunnel to be constructed in that city was $117,815. Joliet, Ill., has passed an ordinance providing for the construction of sewers and water mains to cost $120,000. Press reports state that Scranton, Pa., will spend $400,000 in sewer construction. Sewer bonds have been sold totaling $90,000 at New Britain, Conn., and bonds totaling $50,000 have been sold at Okolona, Miss., also for sewer construction.

Railroads and Miscellaneous

It is reported that the Norfolk and Western has awarded contracts totaling $1,000,000 for the construction of a cutoff near Roanoke, Va. It is reported that the Oregon-Washington Railroad & Navigation Company will shortly spend over $300,000 for improvements. A contract for constructing a $75,000 wharf has been awarded at Beaumont, Texas. The lowest bid opened on dredging work at Providence, R. I., was $91,000. Drainage improvements recommended at Kansas City, Mo., will cost nearly $4,000,000. The U. S. Engineer Office at St. Louis has awarded a $124,000 levee contract, and the U. S. Engineer Office at Galveston has awarded a contract for jetty work which will cost $282,000.

WATERWORKS.

Items Arranged Geographically

Belchertown, Mass.—A bill has been reported in the State House authorizing town to issue $50,000 for water supply.

Beverly, Mass.—It is proposed to relay some water mains, at a cost of $11,000; city to do the work.

Brocton, N. Y.—H. M. Fleming, Village Clk., writes that bids are desired until Apr 9 for constructing water works.

Elmsford, N. Y.—Preliminary plans have been submitted to the Board of Trustees for water works, but as yet no action has been taken on same; matter will first be submitted to the people for a vote on the proposition. J. E. Murray, Village Clk.

New York, N. Y.—Bids desired until Apr. 12 by Wm. Williams, Comr. Water Supply, Gas and Electricity, for furnishing, delivering and storing c. i. pipe, special and valve box castings, valves and double nozzle fire hydrants, in Boro. Manhattan and Bronx; also same place until Apr. 14 for furnishing and laying water mains and appurtenances in Bailey, Cedar and Sedgwick Aves., E. 184th and 225th Sts., Fordham and Kingsbridge Rds., and Harlem River Terrace, Boro. Bronx.

Oakfield, N. Y.—Village Trustees have authorized H. C. Kittredge, German Insurance Bldg., Rochester, to prepare plans for a water system, and supervise its construction; cost about $35,000.

Burlington, N. J.—See "Hydraulic Construction and River Improvement."

Erie, Pa.—Board of Water Com. has authorized Chester & Fleming, Pittsburgh, to prepare plans and specifications for extensive improvements to high service distribution system.

★**Sharon, Pa.** — Contract reported awarded by the Sharon Water Works Co. to Booth & Flinn, Pittsburgh, for filtration plant at about $40,000, to be supervised by Philip Burgess, of Columbus.

Slatington, Pa.—A. N. Kennel, Boro. Secy., writes nothing definite has yet been decided upon with regard to increasing capacity of reservoir. An increase of the water supply may be considered first.

Contracting News

Of Special Interest to Engineers, Contractors, Builders and Manufacturers of Engineering and Building Supplies

Sykesville, Pa.—Bids desired until Apr. 12 by Town Council, Boro. of Sykesville (S. B. Long, Secy.), for constructing main pumping station and deep well pumping station, a reinforced concrete circular reservoir, 30 x 16 ft.; laying c.-i. water pipe line in street with all fittings, gates, fire hydrants, etc. E. W. Hess and A. L. Barton, Engrs., Deposit Natl. Bank Bldg., Du Bois.

Tamaqua, Pa.—Water Comn. is considering question of constructing a reservoir of 357,000,000 gals. capacity.

Baltimore, Md.—Erza B. Whitman, Consulting Engr., Water Dept., has recommended to Mayor and Water Dept., that city install at Mt. Royal Pumping Station 2 pumps, each with a daily capacity of $30,000,000 gals., and that all pumping be concentrated at this station. The cost of the 2 pumps to be $300,500. He also recommended that instead of repairing pump wrecked at the Eastern Station several weeks ago, the city place in that station an electrically driven centrifugal pump of 25,000,000 gals. daily capacity, to cost $25,000. This pump would serve every purpose until one of the suggested 30,000,000 gal. pumps could be placed in service at Mt. Royal.

Hagerstown, Md. — Stockholders of Washington County Water Co., voted Mar. 31 to increase capital from $320,000 to $870,000 to be used for building storage reservoir on South Mountain and for other improvements.

★**Indian Head, Md.**—Contract reported awarded to Edw. Christman, 403 E. Main St., Massillon, O., for additional artesian water supply at Indian Head, at $9,890.

Laurel, Md.—Bids desired until May 1 by Geo. W. Waters, Jr., Mayor, for sewer system, extensions to water mains and other water works improvements advertised in Engineering Record. Harry Stevens, Consulting Engr., Union Trust Bldg., Washington, D. C.

Manning, S. C.—Bids desired until Apr. 13 by Commissioners Pub. Wks. (J. C. Sprott, Chmn.) for constructing a water works system, requiring approximately 1364 lin. ft. 4 in., 21.044 lin. ft. 6 in., 401 lin. ft. 8 in., 1500 lin. ft. 10 in. c.-i. pipe, 5 tons c.-i. specials, 24 valves, 40 hydrants, a pump and boiler house, a 100-h. p. boiler, 2 fire pumps, boiler feed pump, etc.; reinforced concrete reservoir of 250,000 gals. capacity, 100,000 gal. tank on 100 ft. tower. The Shand Eng. Co., Engrs., Columbia.

Winnsboro, S. C.—Citizens have voted $80,000 bonds for water works, sewers and electric light plant.

Bids for above bonds desired until Apr. 15 by Bd. Pub. Wks. (J. E. McDonald, Chmn.).

Richland, Ga.—Citizens have voted $15,000 bonds and $5,000 for water and light extension bonds.

Laurel, Miss.—City Council considering issue of $15,000 bonds for water improvements.

Vicksburg, Miss.—Citizens voted Mar. 23 authorizing Mayor and Aldermen to purchase present or existing water works plant, and use a portion of the funds derived from the sale of $400,000 worth of water works bonds; these bonds being issued for the purpose of building or constructing a municipal water works. A. M. Paxton, City Clk. C. R. Twiss, City Engr.

Cleveland, O.—Council has passed and Mayor has approved ordinance to authorize Dir. of Pub. Utilities to expend $1,500,000 for various water works purposes as follows: Clear water reservoir at Division Ave. filtration plant, $250,000; Division Ave. pumping station superstructure and chimneys, $170,000; Central Ave. tunnel, $25,000; wash-water pumps, feed water pumps, and other auxiliaries for Division Ave. pumping station, $23,000; forced lubricating system, $10,000; coal weighing hoppers, ash hoppers, machine shop equipment, etc., at Division Ave. station, $10,000; steam flow meters and other instruments, $5,000; c. i. pipe, $400,000; overhaul old pumps at Division Ave. station, $30,000; water main extensions, $50,000; miscellaneous items, $27,000; excav. at Baldwin reservoir, $500,000.

Bids desired until Apr. 16 by A. R. Callow, Comr. Purchases and Supplies, for furnishing, delivering and erecting operating tables at filtration plant, Division Pumping Station.

Fostoria, O.—Bids desired until Apr. 20 by Director Public Service, for construction of a 75,000,000-gal. reservoir of earth embankment, 113,000 cu. yds., lined with riprap or concrete, 20,000 sq. yds. Chas. Lathshaw, City Engr. (Specifications on file for reference at New York office of Engineering Record.)

Marietta, O.—City Council reported to be considering construction of a reservoir on the Jackson Hill site. Engineers, Chester & Fleming, Pittsburgh, Pa.

Toledo, O.—G. A. Gessner, Water Works Supt., has recommended repairs to filtration plant to cost $100,000 and additional equipment for low service station, including $35,000 for a lime-slacking device, $20,000 for a chemical conveyor, $10,000 for heating system and $10,000 for a machine chemical feed.

Wooster, O.—Council has passed ordinance providing for issue of $125,000 bonds for water purification purposes.

Zanesville, O.—Council has passed ordinance authorizing Director of Public Service for purchase of 8160 ft. of 6, 8 and 10-in. c.-i. pipe with necessary specials.

★*Items marked thus give the names of parties awarded contracts.*

Toledo, O.—Bids were opened Mar. 31 by Dept. Pub. Service for furnishing material and constructing a high-pressure fire service pumping station, including furnishing of machinery, etc., as follows (The W. J. Sherman Co., Consulting Engrs., Toledo):

Part 1—Substructure: M. M. Colmer, Toledo, $48,000; Henry J. Speaker Co., Toledo, $53,343; A. Bentley & Sons Co., Toledo (no lump bid); Great Lakes Dredge & Dock Co., Chicago, Ill., $64,000; Arrow Eng. Co., St. Louis, Mo., $70,143.

Part 2—Superstructure—(a) as specified, (b) with glazed tile interior finish: A. Bentley & Sons Co., (a) $55,000; Henry J. Speaker Co., (a) $56,965, (b) (2 bids), $59,850 and $64,350 (with glazed tile ceiling finish); L. K. Sherman Co., (a) $57,500, (b) $59,990; Arrow Eng. Co., (a) $65,123, (b) $68,713.

Part 3—Motor-driven pumping units—(a) four of 2000 gal. ea., (b) three of 2500 gal. ea., (c) five of 1500 gal. ea.: Arrow Eng. Co. (4 bids), of different manufacture, $59,990 to $69,523, (b) (4 bids), $60,999 to $69,858; L. K. Sherman Co., (a) (4 bids), $62,540 to $65,000, (b) (4 bids), $59,475 to $61,875, (c) (2 bids), $64,420 and $61,715; Allis-Chalmers Co., Chicago, Ill., (a) (2 bids), $62,690 and $63,730, (b) (2 bids), $60,820 and $61,740, (c) (2 bids), $67,200 and $68,330; Jos. L. Skelvin Eng. Co., Toledo, (a) (7 bids), $64,573 to $72,993, (b) (7 bids), $63,000 to $68,493, (c) (2 bids), $68,500 and $63,868; Henry J. Speaker Co., Toledo, (a) $67,200, (b) $65,500, (c) $68,000; Fowler Electrical Supply Co., Toledo, (a) $69,861, (b) $67,698, (c) $69,075; A. S. Cameron Co., Cleveland, (a) $68,129, (b) $67,590, (c) $67,040; F. Bissell Co., Toledo, (a) (4 bids), $73,437 to $75,177, (b) (4 bids), $70,869 to $72,062, (c) (4 bids), $70,201 to $76,577; Chas. Mackintosh Co., Detroit, (a) $65,775, (b) $63,557, (c) $70,178.

Following are unit prices of the above substructure. Part 1: (a) M. M. Colmer, Toledo; (b) Henry J. Speaker Co., Toledo; (c) Great Lakes Dredge & Dock Co., Chicago, Ill.; (d) A. Bentley & Sons Co., Toledo; (e) Arrow Eng. Co., St. Louis, Mo.:

	(a)	(b)	(c)	(d)	(e)
100 ft. 4-in. vitr. pipe	$0.50	$0.55	$0.15	$0.60	$0.55
100 ft. 6-in. vitr. pipe	.75	.80	.20	.65	.66
100 ft. 8-in. vitr. pipe	1.00	1.05	.25	.75	.905
12,000 ft. round piles	.30	.35	.18	.50	.316
Steel sheet piles, per lb	.02	.025	.028	.03	.0255
12 M ft. wood sheet piles	....	65.00	67.00	75.00	52.80
2,450 cu. yds. excav	5.63	5.83	13.75	10.90	2.09
2,482 cu. yds. concrete	6.00	7.15	3.25	8.00	6.50
150,000 lbs. reinforcing steel	.025	.027	.025	.03	.021
Waterproofing, complete	5,000.00	5,325.00	4,435.00	.....	3,816.00
6 36-in. sluice gates installed	1,600.00	1,875.00	1,600.00	.....	2,046.00
23,000 lbs. 36-in. cast-iron pipe, per ton	40.00	50.00	44.00	60.00	88.00
6,400 lbs. wrought-iron screens (lump sum)	448.00	485.00	415.00	.....	385.00
3 24-in. manhole covers	100.00	110.00	48.00	.....	.....
Work bench and vise	50.00	70.00	60.00	.....	.....
1,225 sq. ft. cut stone work	1,500.00	1,625.00	2,400.00	.....	.....
1,743 sq. ft. outside brick veneer	500.00	570.00	563.00	.....	.....
2,365 sq. ft. inside brick veneer	500.00	623.00	860.00	.....	.....
Extra common labor, per hr	.30	.35	.45	.30	.50
Extra skilled labor, per hr	.60	.70	.60	.75	.75
Extra team labor, per hr	.70	.85	1.00	.70	1.00

Chicago, Ill.—Bids desired until Apr. 14 by Ray Palmer, Comr. Gas and Electricity, for one car load galvanized steel conduit, ½ in., ¾ in., 1 in., 1¼ in., or cost equivalent in other sizes; one car load 2½ in. fiber conduit.

Bids desired until Apr. 16 by D. J. Glackin, Bd. Local Improv. for constructing water service pipes in various streets including Baltimore, S. Hamilton and N. Hamlin Aves., W. 19th, S. Levitt, and other streets.

Joliet, Ill.—City Council has passed ordinance, providing for constructing sewers and water sytem in 3d Ward, to cost $120,000.

Stronghurst, Ill.—Bids desired until Apr. 15 by Bd. Local Improv. (C. H. Curry, Pres.) for constructing a system of c.-i. water supply pipes with hydrants and valves, consisting of approximately 17,420 ft. 4, 6 and 8-in. pipe, 34 hydrants, 3 8-in., 8 6-in. and 10 4-in. valves with valve boxes. W. S. Shields Co., Engrs., Hartford Bldg., Chicago.

Waverly, Ia.—It is reported that plans are being considered for extensions to the municipal electric lighting and water works, to cost about $25,000.

Albany, Minn.—Bids desired until Apr. 15 by Town Council for constructing a steel water tank and repairs to present tower. Jos. Lehner, Mayor; Thos. Tamasek, Town Clk.

Minneapolis, Minn. — Construction of lateral mains in 7 wards of city at a total estimated cost of $47,879 has been ordered by Council Water Works Com. It is stated that a total of $500,000 will be spent by the Water Works Dept. this season.

Virginia, Minn.—Bids desired until Apr. 19 by Water & Light Comn. (J. W. Murphy, Secy.) for furnishing motor-driven pumping equipment including two 2000-g.p.h. horizontal centrifugal split case pumps, furnished f.o.b. cars Virginia; two 125-hp. slip ring induction type motors, designed to operate on a 2200-volt, 3-phase, 60-cycle circuit; also starting panels, switchboard panels and instruments. C. T. Harding, Engr. Comn.

Lemmon, S. D.—Bids desired until Apr. 21 by Elmer F. Sheets, City Aud., for about 9000 ft. water main extensions. Chas. L. Pillsbury Co., Engrs., Metropolitan Life Bldg., Minneapolis, Minn.

Crow Agency, Mont.—Bids desired until May 1, J. B. Houston, Depot Q. M., U. S. A., Washington, D. C., for installing water system at the Custer Battlefield National Cemetery, Crow Agency, Mont.

★**St. Louis, Mo.**—Contract for digging trench and laying pipe line 8 miles long from Bissell's Point to Ft. Bellefontaine to supply water to the new Industrial School reported awarded by Bd. of Pub. Service to John F. McMahon at $10,306. A contract for the necessary pipe was recently awarded for $15,435.

Arkansas City, Ark.—R. W. Smith, owner of Arkansas City Water Works, reported to have sold plant to Jos. Demarke, who will remodel plant and install electric light.

Springdale, Ark.—Fred. E. Reed, City Recorder, writes that the recent Supreme Court decision of this state has killed the proposed water works and sewer system.

Seguin, Tex.—It is proposed to improve and extend water works and electric light plant. Address, O. A. Gafford, Mgr., Water & Light Plant.

★**Floydada, Okla.** — Contract reported awarded to the N. S. Sherman Machine Wks., Oklahoma City, for water works extension at a cost of about $25,000.

Redrock, Okla.—Bids desired by City Clerk about May 1 for constructing water works from plans of Benham Eng. Co., Oklahoma City; cost about $22,000.

Odessa, Wash.—Bids reported desired until Apr. 19 by W. M. Nevins, City Clk., for furnishing and installing a double stroke pump, throwing 350 gals. per minute, under a 200 ft. head, with 35 available h. p.; also 36 ft. pipe, 36 ft. pump rods and a brass cylinder to be used with above mentioned machinery, f. o. b. Odessa.

★**Tacoma, Wash.**—Contract reported awarded by Park Board to the Washington Pipe & Fdy. Co., Spokane, at $8,908, for furnishing 6 and 10-in. wood stave pipe, to be laid in Point Defiance Park by day labor.

★**Modesto, Cal.**—Contract awarded Mar. 11 for tank to Chicago Bridge & Iron Wks., Chicago, Ill., at $5,212. City to build foundation. G. H. Freitas, City Engr.

Ogden, Utah.—Citizens voted Mar. 27 to issue $75,000 bonds for constructing 5-mile pipe line between Coldwater Canyon to municipal flowing wells in Ogden Valley. Washington Jenkins, City Engr.

Salt Lake City, Utah.—The City Com. has appropriated $37,077 for new water mains, including a 12-in. supply main to run from relief tank north of University of Utah to 5th Ave. and L St., and also extensions of service mains in various parts of city.

Bonners Ferry, Idaho.—It is reported the Bonners Water & Light Co. plans making extensions and improvements to local water system. Pipe lines are to be extended and a new pumping plant installed with a capacity of 250 gals. per min.

Kellogg, Idaho.—City Council has appointed a committee to investigate feasibility of installing water works and of bringing water from Big Creek; estimated cost $125,000.

Ottawa, Ont.—Four pumps will be required shortly for Leonieux Island pumping station. R. L. Haycock, Water Wks. Engr.

Toronto, Ont.—The city, through the John Ver Mehr Eng. Co., has made application to City Architect for a permit to build new extension to filter plant. The building alone will be 1 story, brick and concrete and cost $78,000. It will be located on Centre Island, near lake front.

Panama.—Bids desired until Apr. 16 by Maj. F. C. Boggs, Corps Engrs., U. S. A., Genl. Purchasing Officer, Panama Canal, Washington, D. C., for Cor. 912 c.-i. pipes and fittings, valves, sheet copper, etc.

SEWERAGE AND SEWAGE DISPOSAL.

Items Arranged Geographically

New Britain, Conn.—Sewer bonds in the sum of $90,000 reported sold.

West Hartford, Conn.—State Senate has passed a bill allowing town to issue $10,000 bonds for a sewer system.

Gloversville, N. Y.—Bids reported desired until Apr. 20 by C. J. Mahoney, City Clk., for 5435 ft. 12 to 20 in. vitr. sewer. H. J. Hanmer, City Engr.

Long Island City, L. I., N. Y.—Bids desired until Apr. 14 by Maurice E. Connolly, Pres. Queens Boro., for constructing vitri. salt glazed pipe sewer in portion of Britton, Seneca and Fairview Aves. and Ketcham St., in all about 3252 lin. ft. 12, 18, 20 and 24 in., 26 manholes, etc.; also for constructing receiving basins in Meadow St. and corner of Thompson Ave. and Meadow St.

Bids were opened Mar. 31 by Pres. Queens Boro. for construction of sewers in Brevoort St., Cuthbert Pl., Grenfell and other streets in Fourth Ward, Boro Queens, and lowest bid was submitted by Jos. L. Sigretto & Co., Woodhaven, L. I., N. Y., as follows: 388 lin. ft. 3 ft. special section sewer, $19; 1761 lin. ft. 3 ft. 6 in. regular concrete sewer, $8.45; 93 lin. ft. 24 and 15 in. vitri. pipe sewer, $5; 11 manholes, each, $50; 2 chambers, $225 and $250 each; 2 drop chambers, each $160; 1 drop chamber, $175; 140 lin. ft. risers for house connections, including Y's, 65 cts.; 3100 lin. ft. piling, 1 ct.; 10 single receiving basins, $110; 220 lin. ft. 12 in. culvert pipe for basin connection, $1.15; 61 spurs on 24 in. concrete sewers, 50 cts.; 270 lin. ft. 6 in pipe for house connection drains, 80 cts., etc.; total, $26,254. Next 3 lowest bids: Litchfield Constr. Co., Brooklyn, N. Y., $26,857; Peace Bros., Flushing, L. I., $26,800; Chas. A. Meyers Contr. Co., Brooklyn, N. Y., $27,084.

Bids were also opened Mar. 31 by Pres. Queens Boro. for construction of a sewer and appurtenances in Joslin (22d St.) Sanford Ave., 3d Ward, and lowest bid was submitted by H. J. Mullen Contr. Co., Long Island City, as follows: 1184 lin. ft. 5 ft. 6 in. reinforced concrete sewer, $11.40; 288 lin. ft. 24, 22 and 20 in. vitr. salt glazed pipe sewer, $3; 264 lin. ft. 18 in., $2; 729 lin. ft. 12 in., $1.25; 18 manholes, each $40; 7 single receiving basins, ea. $100; 180 lin. ft. 12 in. pipe for basin connections, $1; 16 spurs on 24 in. pipe sewer, $2; 18 spurs on 18 in. pipe, $1.25; 42 spurs on 12 in. pipe sewer, 50 cts.; 585 lin. ft. 6 in. pipe for house connection drains, 50 cts.; 1 drop chamber in Joslin St., $400; total, $18,169. Next 3 lowest bids: Green Constr. Co., Long Island City, $18,430; Peace Bros., Flushing, L. I., $18,559; Chas. A. Meyers Contr. Co., Brooklyn, N. Y., $19,218.

Port Chester, N. Y.—Bids were opened Apr. 5, for constructing a sewer system and a sewage disposal plant, and following are among the lowest bidders (approximate cost only is given): Intercepting sewer, Hayes Constr. Co., Yonkers, about $55,000; tunnel work and mechanical equipment, John Hart, Peekskill, about $27,500; pump house and sedimentation tanks, Suburban Eng. Co., New York, $39,700. Engineer, F. S. Odell, Port Chester.

Rochester, N. Y.—Bids desired until Apr. 14 by Bd. Contract and Supply (F. X. Pifer, Secy.), for constructing a sewage disposal plant for the Brighton Dist., near the easterly end of Tryon Park. Cost about $100,000.

Following are reported to be the unofficial totals of bids opened Mar. 31 for construction of sewer tunnel in Main St. W. and East and Front Sts.: M. H. Ripton, $117,815; Leary & Morrison, $132,080; M. J. Murphy, $133,965; Myers & McWilliams $138,850 and Whitmore, Rauber & Vicinus, $130,000.

Hammonton, N. J.—Council reported to have decided to issue $108,500 bonds for constructing sewer system and disposal plant.

Maywood, N. J.—State Bd. of Health reported to have approved plans of Alex. Potter, 50 Church St., New York, for sewer system; cost $25,000. Cost $153,000. Address, N. B. Beam, Chmn. Sewer Com. Chas. Staas, Boro. Clk.

Philadelphia, Pa.—Local press reports state that bids are about to be opened by Bureau of Highways (Wm. H. Connell, Ch., City Hall) for 11 main sewers, $250,000 available; and branch sewers, $100,000 available.

Scranton, Pa.—Local press reports state state this city will spend $400,000 in constructing 3 sewers and 7 grading, curbing and paving jobs this summer; additional work for the fall season is also said to be contemplated by Dept. of Pub. Wks.

York, Pa.—Following are totals of bids opened Apr. 2 by Bd. of Street and Public Improvements (C. A. Boyer, Supt.) for pumping machinery, for Contract B, sewage pumping station, furnish and install all operating machinery to include three 5,000,000 gal. motor driven pumps, one 10,000,000 gal. gasoline engine driven pump, and various appurtenances: Bennett & Randall, Greensburg, $14,280 (irregular); C. R. Simpson, New York, N. Y., $16,600; Pitt Constr. Co., Pittsburgh, $17,000; F. J. Boas, Philadelphia, $17,500; Pacific Flush Tank Co., New York, $17,980; M. L. Bayard, Philadelphia, $18,000; Lewis & Roth Co., Philadelphia, $18,857; Heyman & Goodman, Jersey City, N. J., $19,700. Engineer's estimate, $17,500. (Geo. W. Fuller, Consulting Engr., New York.)

★**Baltimore, Md.**—Contract for constructing a sanitary sewer under Baltimore St. from Garrison Lane to Gwynn's Falls reported awarded Mar. 31 to M. O'Herron & Sons, of Baltimore, at $29,952.

Laurel, Md.—See "Water Works."

Washington, D. C.—Bids desired until Apr. 21 by Comrs. D. C. for constructing sewers approximately 1000 lin. ft. trunk sewers, 3 ft. span, advertised in Engineering Record.

Grantsville, W. Va.—Citizens reported to have voted $10,000 bonds to construct sewer system.

Georgetown, S. C.—Bids desired until Apr. 14 by Commissioners of Pub. Wks. (R. M. Barnes, Chmn.) for extending the sewerage system, requiring approximately 2 6 in. vertical submerge centrifugal pumps, 2 open frame marine type engines, 2 steel frames for carrying pumps, 1500 ft. 14 in. Class C, I. B. & S. pipe, or 1500 ft. 15 in. spiral riveted asphalt coated pipe, 4 8-in. check valves and 4 8-in. gate valves. E. N. Chisolm, Jr., Engr., Clark Law Bldg., Columbia.

Manning, S. C.—Bids desired until Apr. 13 by Commissioners of Pub. Wks. (J. C. Sprott, Chmn.) for constructing an extension to the sewerage system, requiring approximately 10,200 ft. 8 in. t. c. pipe, 7 flush tanks, 14 manholes, etc. The Shand Eng. Co., Engrs., Columbia.

Manning, S. C.—See "Water Works."

Winnsboro, S. C.—See "Water Works."

★**Lafayette, Ga.** — Contract reported awarded by City Council to J. B. McCrary Co., of Atlanta, for constructing sewer system; this company also purchased $17,500 bonds for the work.

★**York, Pa.**—Bids were opened Apr. 2 for constructing sewage disposal works and pumping station, Contract A, from plans of Geo. W. Fuller, 170 Bway., New York; 14 bids were received ranging from $54,553 to $101,380.

★Following are unit prices of Engineer's estimate and 4 lowest bids—(a) Engineer's estimate, $68,975; (b) Bennett & Randall, Greensburg, Pa., $54,553 (awarded contract); (c) Geo. C. Souder, Lancaster, $55,740; (d) Cantrell Constr. Co., Philadelphia, $58,533; (e) Pitt Constr. Co., Pittsburgh, $63,246:

	(a)	*(b)	(c)	(d)	(e)
Protective works and royalties (lump sum)	$4,500.00	$1,000.00	$1,600.00	$1,620.00	$5,000.00
9,500 cu. yds. earth excavation and disposal	.60	.45	.66	.60	.90
6,000 cu. yds. rolling embankment	.20	.18	.12	.25	.15
5,000 cu. yds. rock excavation	2.00	1.50	1.40	2.10	1.40
500 cu. yds. riprap	.20	1.25	.52	.75	1.25
1,900 cu. yds. concrete	11.00	9.00	7.25	8.00	9.00
150,000 lbs. reinforcing steel	.035	.03	.028	.03	.025
38 tons cast-iron B. & S. pipe	30.00	33.00	35.00	42.00	40.00
18 tons cast-iron B. & S. specials	65.00	65.00	77.00	76.00	80.00
3 tons cast-iron flanged pipe and specials	100.00	60.00	100.00	57.00	100.00
Baffles, including supports (lump sum)	4,040.00	1,400.00	3,000.00	1,110.00	3,500.00
20,000 lbs. miscellaneous cast iron, wrought iron and steel	.06	.05	.07	.06	.05
750 lin. ft. railings	.80	1.00	.80	.59	.50
Swing gates and stands and slide gates (lump sum)	1,000.00	1,350.00	1,600.00	1,240.00	1,100.00
3 4-inch gate valves in place, each	10.00	8.00	11.00	8.85	12.00
1 6-inch gate valve in place	15.00	15.00	16.00	14.35	16.00
14 8-inch gate valves in place, each	20.00	20.00	16.00	21.00	22.00
3 hydrants, each	30.00	25.00	31.00	29.00	27.00
Sluice gates and tide gates (lump sum)	1,600.00	1,240.00	1,380.00	1,320.00	1,200.00
Water jet equipment for settling tanks (lump sum)	1,000.00	340.00	530.00	506.00	600.00
1 M ft. lumber	100.00	50.00	120.00	55.00	75.00
660 cu. yds. crushed stone on sludge beds	1.50	1.25	1.15	1.35	1.00
500 sq. yds. macadam	.50	.50	.33	.75	.40
500 lin. ft. 6-inch vitrified pipe	.30	.25	.22	.18	.20
200 lin. ft. 8-inch vitrified pipe	.40	.30	.25	.24	.25
300 lin. ft. 12-inch vitrified pipe	.60	.45	.46	.40	.40
Venturi meter (lump sum)	1,200.00	1,125.00	1,320.00	1,173.00	1,200.00
Chlorinating apparatus (lump sum)	1,000.00	2,100.00	2,560.00	2,312.00	2,300.00
Pumping station superstructure (lump sum)	5,000.00	4,800.00	4,870.00	4,790.00	4,200.00

★*Items marked thus give the names of parties awarded contracts.*

Macon, Ga.—Bids desired until Apr. 27 by D. S. Jones, City Clk., for constructing sanitary sewers from Vineville and Academy for the Blind to the Ocmulgee River, a distance of about 2¾ miles.

Richland, Ga.—Citizens voted Mar. 22 to issue $15,000 bonds for constructing sewer system.

Birmingham, Ala.—Board of Comrs. Mar. 30 adopted ordinances providing for construction of sanitary sewers in Lincoln City, East Birmingham; cost $6,000; also instructed Julian Kendrick, City Engr., to prepare ordinance for constructing sanitary sewers at North Birmingham, in the vicinity of the American Pipe & Fdry. Co.'s plant; cost $12,500.

Okolona, Miss.—Bonds in the sum of $50,000 reported sold, to be used for constructing sewer system. J. H. Davis, Town Clk.

★**Lexington, Ky.**—Contract has been awarded by City Comrs. to Carey-Reed Co., Lexington, for construction of northside main sewer, at $11,642. Other bidders: G. F. Vaughan, Lexington, $12,246; Henry Bickel Co., Inc., Louisville, $12,292; J. H. Hostetter Co., Lexington, $12,629, and A. G. McGregor, Lexington, $14,558.

Oakdale, Ky.—The Sewer and Drainage Com. reported to have decided to dispose of its own sewage, and will construct a pipe line system to empty into Big Ditch to include drains and septic tanks. E. N. Menar, Mayor.

Cincinnati, O.—Bids desired until Apr. 14 by Director Pub. Service (P. S. Johnson, Secy.), for constructing trunk sewer in Ludlow Run between Grove Ave. and Ellis St.

Cleveland, O.—Bids desired until Apr. 15 by A. R. Callow, Comr. Purchases and Supplies, for constructing sewers in portions of W. 105th and E. 121st Sts.

Columbus, O.—Bids desired until Apr. 20 by Geo. A. Borden, Dir. Public Service, for constructing sewers in portions of various streets, including Bulen Ave. storm sewer, Dupont Ave. sewer, Grogan Sanitary Sewers, Sections 1, 2, 3 and 4 and in various alleys.

Dayton, O.—Following are lowest bids opened Mar. 29 by Bd. Pub. Service for sewers: Hecker & Kirchner, Dayton, for Berm and Wyoming Sts. and Norman and Burton Ave. sewers total $10,197; and Wm. Hilt, of Yellow Springs, for Grafton Ave. Sewer, $20,831.

Greenfield, O.—H. L. Maddocks, Trust Bldg., Newark, has been engaged to prepare plans for a sanitary system and treatment plant for Greenfield. It is proposed to complete a part of system this season.

★**Attica, Ind.**—Contract awarded Mar. 29, for constructing sewer system to M. W. Holben, of Gary, at $15,121. Next 3 lowest bids: Keneth Koontz, Chicago, Ill., $15,474; Wm. Fry, Lafayette, $15,531; Foulkes Constr. Co., $15,834. Weil Light, City Clk. Dan R. Young, City Engr.

★**Bedford, Ind.**—Contract awarded Mar. 30 for constructing 19,500 ft. sewers to John J. Quinn, Bedford, at $15,000. Other bids: E. V. Bergin, Franklin, Ind., $15,521; P. O. Leary & Son, Terre Haute, Ind., $15,808; Bennett & Scamahorn, Rockport, Ind., $15,998. J. W. Malott, City Engr.

Gary, Ind.—All action on proposed construction of sewer in Dist. 24 has been rescinded, and no bids were opened Mar. 29; estimated cost $12,263. W. J. Fulton, City Engr.

★**Indianapolis, Ind.** — Contract was awarded Apr. 2 for constructing College Ave. main sewer, to Sheehan Constr. Co., Indianapolis, at $5.27 per lin. ft. including all items. Other bids: American Constr. Co., Indianapolis, $5.56 on concrete, $5.72 on brick, segment block or concrete pipe; John B. McLane & Co., Cincinnati, O., $5.67 on American vitr. block; John H. Cahill, Louisville, Ky., $5.70 on American vitr. block, $5.73 on Merriwether system of concrete pipe. Work includes about 12,737 lin. ft. vitr. block sewers 7 ft. 6 in. to 2 ft. 6 in. and 25,130 ft. 24 to 10-in. pipe and 38,340 ft. 6-in. house connections, with 135 catch basins, 94 oval manholes, 16 circular manholes, 17 inlets and 2 junctions.

Bids will be called for in about 10 days for the 38th St. main overflow drain; estimated cost, $90,000. Size 8 ft. 6 in.; length, 4345 ft.

Plans for Central Ave. main sewer have been completed and will be advertised for soon; length about 4 miles; estimated cost $158,000. Size from 12 in. to 6 ft. Chas. A. Brown, Asst. City Engr. in charge of sewers.

Detroit, Mich.—The annual sewer budget of Dept. Pub. Wks. is said to include the following: A new sewer in Colfax Ave., from Warren Ave. north, to cost $69,463; a sewer in Lycaste Ave., south of Jefferson Ave., to cost $39,282, and a sewer in Evans Ave., south of Jefferson Ave., to cost $16,500. A supplemental item of $10,000 for sewage disposal investigation; also $53,800 for new equipment for Fairview Ave. pumping station.

Chicago, Ill.—Bids desired until Apr. 16 by D. J. Glackin, Secy. Bd. Local Improv. for constructing drains in portions of Calhoun, Montrose and Pensacola Aves., W. 87th and S. Robey Sts.; also for constructing sewers in Concord Pl., Ellis Ave., Augusta, Rice and various other streets and alleys.

Joliet, Ill.—See "Water Works."

Kenosha, Wis.—Bids reported desired until Apr. 23 by Street Assessment Com. (J. M. Scholey, Chmn.) for constructing sewers in various streets.

Oshkosh, Wis.—Contracts about to be let by Bd. of Pub. Wks. for bids for construction of sewers in 7th and Lincoln Aves., Sterling, Evans, 10th, Vine and 7th Sts.

★**Cedar Rapids, Ia.**—Contract awarded Mar. 29 for constructing sanitary sewers and water connections in 8th and H Sts., to Messner & Co., Cedar Rapids. L. J. Storey, City Clk.

Billings, Mont.—Bids reported desired until Apr. 30 by City Clerk for constructing sanitary sewer system in certain alleys of Improvement Dist. 133.

Kansas City, Mo.—See "Hydraulic Construction and River Improvements."

Brownwood, Tex.—Citizens voted Mar. 23 to issue $15,000 bonds for sewers and school building.

Afton, Okla.—Bids desired by City Clerk about May 1 for constructing sewer system from plans of Benham Eng. Co., of Oklahoma City; cost about $37,000.

★**Drumright, Okla.**—Contract reported awarded to Tolbert Constr. Co., Ada, for constructing sewer system, at $18,500.

Seattle, Wash.—A. H. Dimock, City Engr., estimates cost of constructing Oxbow sanitary fill at $70,000.

★**McMinnville, Ore.**—Contract reported awarded to V. R. Dennis, Lewis Bldg., Portland, for extension to sewer system, at $31,797 (bids opened Mar. 23).

Salt Lake City, Utah.—Sylvester Q. Cannon, City Engr., is completing plans for the $300,000 outlet sewer to be constructed across southwestern section of city.

Lewiston, Idaho.—Bids reported desired until Apr. 26 by C. F. Leland, City Clk., for constructing a sanitary sewer in Sewer Dist. No. 6, requiring approximately 11,670 lin. ft. 6 to 10 in. pipe, 23 manholes, 6 flush tanks, etc.

Parma, Idaho.—J. C. Watson, City Clk., writes bids desired in May for sewer extensions, from plans of Fred J. McConnel, of Caldwell.

Ottawa, Ont.—It is proposed to construct a $22,000 addition to Mechanicsville sewer system, to be done by day labor. F. C. Askwith, Acting City Engr.

BRIDGES.

Items Arranged Geographically

Portland, Me.—The House has voted favorably the bill authorizing Cumberland County to construct Orrs-Bailey Island Bridge.

★**Lawrence, Mass.**—Contract for about 15,000 bbls. cement for bridge work awarded by Bridge Comrs. to John J. Evans, Lawrence, at $1.59 per bbl.

Springfield, Mass.—Plans being prepared by City Engineer for bridge to be constructed at Plainfield St.; cost about $40,000.

Worcester, Mass. — Construction of bridge over Lake Quinsigamond at Worcester is contemplated by county, city and Worcester Consolidated Street Ry. Co.; cost about $265,000.

★**Elma, N. Y.**—N. Hucker, Town Clk., Rice Rd., Elma Center, writes that contract for constructing a reinforced concrete arch highway bridge (bids opened March 20) has been awarded to Kelly Wheeler, of Buffalo, at $6,350. Next 3 lowest bids: Howard L. Meyer, Depew, $7,850; John Johnson Constr. Co., Buffalo, $8,968; Arthur J. Shaw, Batavia, $8,460.

Elmira, N. Y.—Bids desired Apr. 16 by City Clerk for reinforced concrete culvert, 7 ft. span, 111 ft. long.

Gloversville, N. Y.—Bids are desired until Apr. 20 by C. J. Mahoney, City Clk., for 4400 yds. concrete pavement on Jay and W. 8th Sts., 7000 yds. macadam resurfacing on Kingsborough Ave. and 1200 yds. brick surfacing on W. Fulton St. (Advertised in Engineering Record.) H. J. Hamer, City Engr.

New York, N. Y.—See "Paving and Roadmaking."

New York, N. Y.—Bids desired until Apr. 15 by F. J. G. Kracke, Comr. Bridges, for the equipment of the westerly tracks of the upper deck of Manhattan Bridge. Security, $40,000.

Oswego, N. Y.—Citizens of Towns of Volney and Oswego voted Mar. 30 to issue bonds to construct a concrete steel bridge over Oswego River at Minetto from plans and specifications of Concrete-Steel Eng. Co., Park Row Bldg., New York; cost about $100,000.

Sea Isle City, N. J.—Bids desired until May 4 by Bd. Chosen Freeholders for constructing a steel "Strauss" type double lift bridge on cement, concrete and piling over main thorofare at Sea Isle City, advertised in Engineering Record. Leaming M. Rice, Co. Engr., Wildwood, N. J. Frank W. Fowkes, Clk. Bd.

East Berlin, Pa.—Comrs. of Adams County, at Gettysburg, and York County voted to construct concrete bridge over Beaver River.

Franklin, Pa.—Bids desired until Apr. 13 by Co. Comrs. at Franklin (John L. Shafter, Chmn.) for furnishing material and doing following work: Removing present floor and sidewalk from French Creek Bridge at Utica, and replacing a creosoted block floor on wooden or steel stringers; also painting said bridge and repointing and renovating masonry, etc.; removing present Shippen Bridge over Sugar Creek, pointing abutments, constructing new bridge seats and parapets, and erecting a new 102.5 ft. span pony Warren truss steel bridge with 16 ft. roadway, concrete or creosoted block floor; removing present floor and sidewalk from White Bridge over Oil Creek, at Oil City, replacing expansion rollers and straightening bent members, cleaning and painting all metal work, repointing and repairing masonry, placing creosoted block floor on wooden stringers and a creosoted plank sidewalk on wooden stringers.

Manheim, Pa.—David Swope, of Lancaster, Clk. Co. Comrs., writes no bids yet asked for constructing a 50-ft. span concrete girder bridge and will not be before latter part of April.

Reading, Pa.—Bids desired until Apr. 13 by D. K. Hoch, Co. Compt. for constructing a reinforced concrete slab bridge at White Bear over Hay Creek, Robeson Township.

West Chester, Pa.—Bids desired until Apr. 12 by County Comrs. at West Chester for constructing bridges as follows: A 2-arch bridge near Lyndell, East Brandywine Township; concrete and steel I-beam bridge near Lincoln University, Upper Oxford Township; arch bridge near Dowlin's Forge, Uwchlan Township; steel girder and stone arch bridge near Knauertown, Warwick Township. Isaac Y. Ash, County Controller.

Cumberland, Md.—The iron bridge crossing Will's Creek at Market St. is reported destroyed. According to reports a concrete bridge will be erected by city at cost of about $15,000.

Fredericksburg, Va.—Supervs. Spotsylvania, Fredericksburg and Caroline Counties voted to construct bridge over Massaponax River on Caroline Rd.; cost $5,000.

Rome, Ga.—Plans of Spiker & Griener, Baltimore, Md., for 3 bridges to be erected in Floyd County accepted by County Comrs. Plans provide for concrete bridge over Etowah River at 2d Ave., cost $88,800; concrete bridge over Etowah River at Broad St., cost $86,700, and steel bridge over Oostanaula River at 5th Ave., cost $85,500.

Jacksonville, Fla. — Plans of Isham Randolph Co., Chicago, Ill., for constructing 2-deck bridge at Laurel St., to be 2500 ft. long and 40 ft. wide, have been submitted to War Dept. at Washington, D. C.

Akron, O.—About $200,000 will be spent by County Comrs. for following improvements: Bridge at Young's Hotel, cost $8,000; bridge over canal at peninsula, cost $8,000; bridge at Tallmadge Ave., repair road near Ols Portage, repair road near Ira, build culvert or bridge in Bath Township.

Akron, O.—See "Paving and Roads."

Cleveland, O.—Bids desired until Apr. 16 by A. R. Callow, Comr. Purchases and Supplies for concrete culvert over Doan Brook in Rockefeller Park near 105th St. for extension of Hough Ave.

Bids desired until Apr. 17 by Co. Comrs. at Cleveland, for constructing a reinforced concrete beam bridge as per Report 3353. W. A. Stinchcomb, Co. Surveyor. E. G. Krause, Clk. Comrs.

Columbus, O.—Bids desired by County Comrs. until May 1 for constructing the Angler Bridge over Alum Creek; it will be of reinforced concrete, 1166 ft. long, 27 ft. 2 in. wide, and will consist of one span 44 ft. 8 in., 67 ft. 8 in., and 102 ft. 2 in., three spans of 90 ft. 8 in., two spans of 113 ft. 8 in., and two spans of 136 ft. 8 in., besides 6 small spandrel spans of 10 ft. 2 in. and a short curved retaining wall abutment at east end of bridge. Plans prepared by E. P. Knollman, Asst. County Surveyor, under supervision of Walter Braun, County Bridge Engr. John Peake, County Surveyor.

Delaware, O.—About $80,000 county bridge bonds have been sold.

★**Sciotoville, O.**—Contract for constructing Sciotoville Bridge awarded by Chesapeake & Ohio R.R. Co. to McClintic-Marshall Co., Columbus.

Tiffin, O.—Bids desired until Apr. 24 by County Comrs., Tiffin, for furnishing material and constructing 2 reinforced concrete arch bridges and also 2 concrete abutments and steel superstructures for same locations, each 100 ft. in length, the Honey Creek Bridge No. 230, Eden Township, and Honey Creek Bridge No. 96, Bloom Township.

Illinois.—Bids desired at office of the State Highway Comn., Springfield, Ill., until 11 A. M., Apr. 14, for following proposed State Aid Bridge Work:

Massac County, Sect. A, 199.9 cu. yds. reinforced concrete; Engineer's estimate $2,925.

Johnson County, Sect. A, 205 cu. yds. reinforced concrete; Engineer's estimate $2,760.

Illinois.—Bids desired for constructing bridges in Illinois as follows:

Taylorville, until 7:30 a. m. Apr. 12, at office of C. A. Pennington, Co. Supt. Highways, Taylorville, on alternate plans for either a reinforced concrete bridge or a steel bridge on reinforced concrete abutments, to be built between Buckhart and Mt. Auburn Townships, known as Troumbower Bridges, span 50 ft., roadway 16 ft. Engineer's estimate for concrete bridge $2,000; for steel bridge $1,970.

Robinson, until Apr. 17 at office of J. P. Lyon, Co. Supt. Highways, Robinson, for constructing a reinforced concrete bridge in Martin Township, known as Persinger Bridge, span 50 ft., roadway 16 ft. Engineer's estimate, including piles, $2,800.

Illinois—Bids desired for constructing bridges in Illinois as follows:

McCarroll, until Apr. 17, at Courthouse McCarroll, reinforced concrete bridges as follows: Lost Creek Bridge, Shannon Township, 40-ft. span, 18-ft. roadway. Engineer's estimate $1,813. Michaels Bridge, Lima Township, reinforced concrete box culvert, 6 x 6 ft., 24-ft. roadway. Engineer's estimate $415. Hileman Bridge, Lima Township, 8-ft. span, 18-ft. roadway. Engineer's estimate $815. Dimon Bridge, Rock Creek Township, 35-ft. span, 18-ft. roadway. Engineer's estimate $1,645. Heath Bridge, Rock Creek Township, 40-ft. span, 16-ft. roadway. Engineer's estimate $1,734. Hawk Bridge, Salem Township, 50-ft. span, 18-ft. roadway. Engineer's estimate $3,026. Richter Bridge, Salem Township, 24-ft. span, 16-ft. roadway. Engineer's estimate $1,216. Lamb Bridge, York Township, 16-ft. span, 20-ft. roadway. Engineer's estimate, $830. L. P. Scott, Supt. Highways, McCarroll.

Bunker Hill, until Apr. 20, at Town Hall, Bunker Hill, for constructing Dingerson, Elliott and Wood Bridges, spans 13, 14 and 12 ft.; roadways 16, 24 and 16 ft. Engineer's estimate for 3 bridges, $30,050. C. H. Folkerts, Town Clk., Bunker Hill.

Piasa, until Apr. 22, at Town Hall, Piasa, for Ewin and Thompson Bridges, Shipman Township, spans 12 and 20 ft.; roadways 24 and 18 ft. Engineer's estimate for 2 bridges $1,700. R. N. Tower, Town Clk., Piasa.

★**Marion, Ia.**—Contracts awarded Mar. 30 for constructing 14 bridges and culverts as follows: Illinois Steel Bridge Co., Jacksonville, Ill., $8,140; A. P. Munson, Marion, $7,869; Missouri Constr. Co., Cedar Rapids, $6,035; Perry Jayne, Marion, $2,218, and Jas. Wiley, Cedar Rapids, $3,875. F. A. Canfield, Co. Aud.

★**Tipton, Ia.**—Contract awarded Mar. 20 for constructing concrete bridges and culverts as follows: To N. M. Stark Co., Des Moines, 14 jobs, $13,200; Koss Constr. Co., Des Moines, 13 jobs, $4,798; S. R. Johnston Co., Tipton, 27 jobs, $5,793, and Waterloo Constr. Co., Des Moines, 21 jobs, $48,201. T. C. Moffit, Co. Aud.

Crookston, Minn.—Bids reported desired Apr. 21 by Co. Comrs. for constructing 6 steel bridges.

★Contract for steel culverts awarded by Co. Comrs. to Minneapolis Steel & Machinery Co. and for concrete culverts to Concrete Sectional Culvert Co.

Whiting, Kan.—Bids reported desired until Apr. 14 by J. M. Ryan, Secy. Straight Creek Drainage Dist., for steel bridges as follows: 48-ft. steel pony truss and two 14-ft. steel I-beam approach spans, 14-ft. roadway substructures, 4 wood pile bents or 2 steel bents. H. B. Walker, Drainage Comr., Manhattan.

Kearney, Neb.—Bd. Supervisors Kearney and Buffalo Counties voted to construct concrete viaduct over Platte River, south of Kearney; cost $60,444.

★**Lincoln, Neb.**—Contract for constructing concrete bridge over Platte River, on Lincoln Highway, awarded by County Board and State Board Irrigation to Canton Bridge Co., Canton, O., at $43,975.

★**Little Rock, Ark.**—Contract for completing approaches to W. 3d St. Viaduct awarded by Bd. Public Affairs to Nick Peay, at $8,054.

Texarkana, Ark.—See "Paving and Roadmaking."

Carlsbad, N. M.—Bridges crossing Pecos River at Artesia and Lakewood will be rebuilt by County Comrs. at Carlsbad; cost about $5,000.

★**Bellingham, Wash.**—Contract for constructing 320-ft. steel bridge over Nooksack River near Bellingham awarded by County Comrs. Mar. 18 to Weymouth Constr. Co., Pier 1, Seattle, at $31,318.

Malaga, Wash.—D. J. Kerr, Office Engr., St. Paul, Minn., Grand Northern Ry. Co., writes that the bridge reported contemplated at Malaga will not be rebuilt for several years.

Olympia, Wash.—Bids reported desired by W. A. Hoage, City Clk., until Apr. 19 for constructing concrete bridge to replace the one recently destroyed; probable cost $10,000.

Bids desired by County Auditor until Apr. 19 for constructing bridge over Perry Creek; Pony truss, concrete foundation; three 80-ft. spans, width 20-ft.; cost about $13,000. W. H. Yeager, Co. Engr.

Tacoma, Wash.—See "Private Buildings."

★*Items marked thus give the names of parties awarded contracts.*

Tacoma, Wash.—The County Comrs. are about to let contract for a 60 ft. pony truss on concrete piers and 145 ft. of trestle at South Prairie. Henry Hilt Co., Bridge Engrs. David White County Engr.

★Contract for constructing River St. Viaduct for Northern Pacific Ry. Co. has been awarded to Weymouth Constr. Co., Pier 1, Seattle, at $44,000.

Adrian, Ore.—Plans have been prepared by B. F. Farmer, County Surveyor, Vale, for constructing steel and concrete bridge over Snake River; cost about $35,000.

Lebanon, Ore.—Bids will be received about Apr. 10 for bridge to be constructed over Santian River by county; cost about $16,000.

★**Vale, Ore.**—Contract for constructing steel bridge with concrete abutments over Snake River awarded by County Court to Coast Bridge Co., Railway Exchange Bldg., Portland, at $24,150.

West Linn, Ore.—See "Paving and Roads."

Watsonville, Cal.—Plans of Leonard & Day, San Francisco, for bridge to be constructed of concrete over Pajaro River recommended for acceptance by county and city; estimated cost $35,500.

Salt Lake City, Utah.—Denver & Rio Grande R.R. Co. (J. G. Gwyn, Ch. Engr., Denver, Colo.) has been directed to rebuild bridge crossing Bingham Canyon.

Oregon Short Line (Carl Stradley, Ch. Engr., Salt Lake City) will construct 24-ft. addition to viaduct at N. Temple St.; cost $120,000.

Sandpoint, Idaho.—Plans being prepared by Clyde J. Chatfins, County Surveyor, for bridge to be constructed over Pend Oreille River; estimated cost $20,000.

PAVING AND ROADS.

Items Arranged Geographically

Boston, Mass.—Bids are being received by Comr. of Pub. Wks. for paving with wood blocks on Tremont St., from Boylston St. to Scollay Sq.; cost $28,000.

Chicopee, Mass.—Bids desired until 4 P. M. Apr. 12 by John F. Sullivan, Supt. Streets, for trap rock of all sizes, specifying price for each size f.o.b. cars, Chicopee Center, Chicopee Falls and Williamansett; the price per yard for resurfacing old tar walks, constructing new sidewalks of cement concrete, constructing new sidewalks of tar concrete.

Lee, Mass.—C. H. Pease, Town Clk., writes 1 mile macadam road to be contracted for by town; also 2½ miles state macadam, contract to be taken by town; work under supervision State Highway Comn.

Massachusetts—Bids desired until Apr. 13 by State Highway Comn., Boston (W. D. Sohier, Chmn.) for surfacing a section of State highway, about 10,500 ft. in length, in the town of Ashby; also surfacing a section about 3800 ft. in the Town of Gardner.

South Dartmouth, Mass.—Bids desired until Apr. 17 by Wm. B. Collins, Highway Surveyor of Dartmouth, care of Town Clk. of Dartmouth, South Dartmouth, for constructing a concrete road on Padanaram Causeway, town of Dartmouth.

★**Connecticut.**—Contracts have been awarded as follows by Chas. J. Bennett, State Highway Comr., Hartford, Conn., on bids opened Mar. 22.

★Stamford, about 4810 lin. ft. of native stone macadam road to A. Brazos & Sons, Middletown, $6,963.

★Wethersfield, about 7680 lin. ft. of bituminous macadam road to the B. D. Pierce, Jr., Co., Bridgeport, $9,248.

★Waterbury, about 10,100 lin. ft. of 8-in. gravel road to Connecticut Good Roads Constr. Co., New Britain, $11,422.

Bids desired Apr. 19 by Chas. J. Bennett, State Highway Comr., Hartford, for constructing the following State highways:

Town of Hampton, 2975 ft. native stone macadam.

Old Lyme, 8690 ft. native stone macadam.

Wethersfield, 1013 lin. ft. bituminous macadam.

Rocky Hill, 1225 lin. ft. plain or reinforced concrete pavt.

Greenwich, Conn.—Bids desired by Highway Comn. (Chas. T. Wills, Chmn.) for concrete paving as follows, advertised in Engineering Record:

Until Apr. 17, 26,500 sq. yds. on Field Point Road, Prospect St., Horseneck Lane and Lake Ave.

Until Apr. 20, 23,500 sq. yds. on Riverside Ave. and South Beach Ave.

Albany, N. Y.—Bids desired until Apr. 26 by State Comn. of Highways, Albany, for furnishing and delivering bituminous materials "A" and "T" in the different counties comprising Divisions 1 to 9, inclusive, advertised in Engineering Record. Edwin Duffey, State Comr. Highways.

Brooklyn, N. Y.—Bids were opened Mar. 31 by Pres. Brooklyn Boro. for regulating and repaving, including restoration of the paving, etc., Hewes St., Classon and Park Aves. and the lowest bid was submitted by Rosenthal Eng. & Contr. Co., Brooklyn, as follows: 965 lin. ft. old curb reset, 1 ct.; 1790 lin. ft. new curb set in sand, 79 cts.; 900 lin. ft. new curb set in concrete, $1.07; 175 lin. ft. bluestone heading stone set in concrete, 75 cts.; 505 sq. ft. granite crosswalks, rejointed and relaid, 45 cts. 170 sq. ft. bluestone crosswalks rejointed and relaid, 30 cts.; 970 cu. yds. concrete for pavement foundation, $4.60; 1060 sq. yds. asphalt pavement, including binder course, $1; 40 sq. yds. grade 1 granite pavement with joint filler of cement grout, $1; 2980 sq. yds. grade 2 granite pavement with joint filler of cement grout, 80 cts.; 2535 sq. yds. grade 2 granite pavement with joint filter of coal tar pitch and gravel, 80 cts. 2840 sq. yds. grade 2 granite pavement on a sand foundation with joint fill of sand, 69 cts.; 1050 sq. yds. Belgian block pavement on sand foundation with joint filler of sand, 65 cts.; total, $15,412. Next 3 lowest bids: Chas. A. Meyers Contg. Co., Brooklyn, N. Y., $15,708; Newman & Carey Co., Brooklyn, N. Y., $16,819; M. F. Moran, Brooklyn, $17,688.

Brooklyn, N. Y.—Bids desired until Apr. 15 by Cabot Ward, Pres. Park Bd., New York, for furnishing, delivering and spreading 36,500 gals. non-asphaltic road oil to parkways in Boro. Brooklyn.

Bids desired until Apr. 14 by L. H. Pounds, Pres. Brooklyn Boro. for repaving with granite on 6-in concrete found. 18th St., about 2750 sq. yds. and Front St. about 1425 sq. yds.

Cedarhurst, L. I., N. Y.—Citizens voted Apr. 1 to issue $36,000 bonds for paving certain roads. Cyril E. Marshall, Village Engr.

Irondequoit, N. Y.—Bids desired until Apr. 19 by Good Roads Com. (Wm. E. Porter, Chmn.) and J. Y. McClintock, County Supt. of Highways, at Court House, Rochester, for improving East Side Boule., with California asphalt, in town of Irondequoit.

Port Jervis, N. Y.—Bids desired until Apr. 22 by John F. Cleary, City Clk., for about 6900 sq. yds. brick paving on Jersey Ave., including curbing, etc., advertised in Engineering Record.

★**Watertown, N. Y.**—Contract for paving with wood block northerly part of Public Square awarded by city to Wm. F. Cogley, Utica, at $28,822.

Camden, N. J.—Bids desired until Apr. 19 by A. B. Sparks, Chmn. County Road Com., for paving with Belgian blocks on concrete portions of Carters Pl., 6th and Division Sts.

Chesterfield, N. J.—New bids desired Apr. 26 by Township Com., Chesterfield Township (C. M. Bunting, Chmn.) at Chesterfield Hotel, Chesterfield, for constructing a waterbound broken stone road with a bituminous dressing and gravel sides from end of present stone road in the village of Chesterfield to the township line between the townships of Chesterfield and North Hanover, a distance of 11,575 ft. Probable cost $20,000. Jas. Logan, Co. Engr., 11 Main St., Mt. Holly.

★**Glen Ridge, N. J.**—Contract awarded Mar. 22, for furnishing 30,000 gals. non-asphaltic road oil to Standard Oil Co., Newark, at 5.2 cts. per gal. John W. A. Brown, Boro. Clk.

Jersey City, N. J.—Bids desired by the Bd. of City Comrs., until Apr. 22, for improvement of Grove St., with Belgian block; also the improvement of Elizabeth St. and Chestnut Ave.

City Comrs. contemplate paving Montgomery St. and Communipaw Ave.

Newark, N. J.—Following are totals of 4 lowest bids opened Apr. 1 by Bd. Street and Water Comrs. for paving Central Ave., Niagara and Margaretta Sts. with 4-in. wood block on concrete, about 3000 sq. yds.: McMahon Constr. Co., $11,024; Newark Paving Co., $11,136; Glenfield Constr. Co., $11,433, and Van Keuren & Son, $11,486.

Bids desired until Apr. 22, Street and Water Comrs. (M. R. Sherred, Ch. Engr.), for paving portions of Elm Rd., Chester Ave., Ferdinand and Hunterdon Sts., requiring 21,000 sq. yds. bitulithic pavement on a 6-in. concrete foundation, 800 lin. ft. 16 x 5-in. curb, 5200 lin. ft. 16 x 5 in. bluestone curb and 1800 lin. ft. curb reset.

Trenton, N. J.—Bids desired by Bd. Chosen Freeholders Apr. 20 for 2 miles of a 2-in. bituminous top on the Trenton and Allentown Turnpike, from Bromley Inn to Mercerville; to be resurfaced on the present macadam base, 20 ft. wide. Bids will also be received same time and place for Sect. 1 of River Rd. with concrete; also Sect. 2 of River Rd. with bituminous concrete. Theo. Tobish, Co. Engr.

Bids desired until Apr. 13 by County Bd. Chosen Freeholders (John J. Fowler, Dir.) for a road roller.

★**Edgeworth, Pa.**—Contract awarded Mar. 29 for resurfacing Beaver Rd. to E. W. Falk, Leetsdale, at $1.08½ on telford or $1.50 with new concrete base. Edw. R. Beck, Boro. Mgr.

Franklin, Pa.—Bids desired until Apr. 26 by J. G. Crawford, City Clk., for brick pavement on concrete base, 7950 sq. yds., on Elk St., including curbing.

Lansdowne, Pa.—Plans have been prepared by N. P. Foster, Borough Engineer, for boulevard 300 ft. wide to extend from Baltimore Pike to Providence Rd.

New Castle, Pa.—C. E. Brown, City Clk., writes bids will soon be asked for paving with brick on concrete foundation, with stone curb, Clayton, Washington and Mill Sts., Highland and Moody Aves. and Phillips Pl. C. H. Milholland, City Engr.

Philadelphia, Pa.—The Highway Bureau (Wm. Connell, Ch., City Hall) is preparing plans and shortly will let contracts for additional street and boulevard work, aggregating about $1,800,000, to include further extensions to the Northeast Boule., from Rhawn St. in 3 branches to Frankford, Torresdale and Bustleton. Council also considering repairs to streets in central part of city between Snyder and Columbia Aves., and Delaware and Schuylkill Rivers, for which $600,000 is available; repairs to streets outside these boundaries, $200,000 available; renewals to country roads, $200,000 available, and grading of new streets, $300,000 available.

Rousville, Pa.—Citizens voted $10,000 bonds for paving Main St.

Scranton, Pa.—See "Sewerage and Sewage Disposal."

Wilmington, Del.—City Council voted to issue $500,000 bonds for paving streets.

Baltimore, Md.—Lowest bid opened Mar. 31 by City Paving Comn. for Contract 113, paving German St. from Eutaw St. to South St., submitted by Slack & Slack Co., at folowing bid: Granite block redressed, 6-in. concrete base, cement fill, sand cushion, 6960 sq. yds., $2.05; Lug Wood block, 6-in. concrete base, bituminous sand fill, mortar cushion, 1700 sq. yds., $3.40; granite block, redressed, in railway area, cement fill, sand cushion, 6-in. concrete base, 5150 sq. yds., $2.70; granite block, redressed, in railway area, bituminous fill, sand cushion, 6-in. concrete base, 200 sq. yds., $1.10; total, $38,426. Other bids: American Paving & Contr. Co., $38,539; Baltimore Asphalt Block & Tile Co., $41,551; P. F. Reddington, $41,586; Consolidated Eng. Co., $42,349.

Cambridge, Md.—Bids desired until Apr. 13 by Co. Comrs. (I. O. Taylor, Pres.) for building a section of road between Cabin Creek and East New Market, a distance of about 2.8 miles.

★**Maryland.**—State Roads Comn., Garrett Bldg., Baltimore (Wm. L. Marcy, Secy.), Mar. 22 awarded contracts for paving as follows: Cathedral St., with asphalt, in Baltimore, to American Paving & Constr. Co., 211 S. 9th St., at $20,753; road between Cumberland and Nave's Farm, in Allegany County, to Thomas, Bennett & Hunter, Westminster, at $11,715; 4 miles Annapolis Boule., to Fisher & Carozza, at $43,954; 5½ mile road between La Plata and a point near Ripley, in Charles County, to Thomas Mullan, at $22,854; 1 mile road through Hancock, in Washington County, to F. J. McGuire, at $13,446.

Petersburg, Va.—Bids desired until Apr. 12 by J. R. Jones, Chmn. Street Committee, for furnishing 2 tank cars of approximately 8,000 gals. each of road oil.

★**Pulaski, Va.**—Contract awarded Mar. 20 to Hottell Constr. Co., Pulaski, for 21,000 sq. yds. 7-in. reinforced concrete pavt. at $1.18 per sq. yd. and 85,000 sq. yds. macadam, asphalt surface treatment at 46½ cts. per sq. yd.; also 40,000 sq. yds. excav., 50,000 lin. ft. curb and gutter and 4,000 ft. of storm sewer; total $103,059. Next 3 lowest bids: W. J. Jones, Lynchburg, $103,945; Sullivan Constr. Co., Bluefield, W. Va., $111,988; J. R. Ford & Co., Lynchburg, $116,619. M. L. Hudgins, City Engr.

★**Charleston, W. Va.**—Contracts for paving (bids opened Mar. 24) have been awarded as follows: To R. M. Hudson, Atlanta, Ga., for paving Charleston St., 14,900 sq. yds. with Porter brick, at $1.99 per sq. yd.; to Glover & Kimberlin, Charleston, W. Va., Florida and Virginia Sts. and Central and 4th Aves., 21,590 sq. yds. with standard brick, $1.64 and $1.65 per sq. yd.; to Central Eng. Co., Charleston, W. Va., Park Ave., 5050 sq. yds. with concrete, $1.17, and Jefferson St., 1270 sq. yds. $1.14; to Carey Reed Co., Lexington, Ky., Quarrier St., 7110 sq. yds., asphaltic concrete, at $1.51, and to Federal Asphalt Co., Hamilton, O., for Ruffer and California Aves., and Jackson, Beauregard, Elizabeth and McCluny Sts., 19,080 sq. yds., at $1.29 to $1.34 per sq. yd.

The above brick pavement to be on 5-in. concrete base, mixed 1:2½:5, and 1½-in. sand cushion and cement grout filler, 6-in. of limestone concrete, mixed 1:2:3; asphaltic concrete, practically Topeka, mixed, on 2-in. thick, on 5-in. concrete base, mixed 1:2½:5. G. S. Brown, City Engr.

Greensboro, N. C.—J. G. Foushee, Com. of Pub. Wks., writes bids are desired until Apr. 14 for paving on W. Market, Ashboro and other streets, about 100,000 sq. yds., with sheet asphalt or asphalt macadam, foundation part old macadam and part concrete; cost $100,000. Engineer, E. W. Myers, of Greensboro.

★**Kinston, N. C.**—Contract awarded Mar. 23 for 20,000 sq. yds. sidewalks and 12,000 sq. yds. pavements to West Constr. Co., Chattanooga, Tenn.

Lancaster, S. C.—Bids reported desired until Apr. 20 for 12,000 yds. paving. H. S. Jaudon Eng. Co., Engrs., Savannah, Ga.

Sarasota, Fla.—Citizens voted $250,000 bonds for constructing about 34 miles sand-asphalt roads.

★**Birmingham, Ala.**—Contract awarded by Bd. of Comrs. Mar. 30 to Birmingham Paving Co., Birmingham, for paving 1st Ave. from east end of viaduct to 41st St. at $28,677. Julian Kendrick, City Engr.

Abbeville, La.—Bids desired until Apr. 24 by Highway Dept. of Bd. State Engrs., Room 104, New Orleans Court Bldg., New Orleans, for constructing with earth about 9 miles of the Abbeville Kaplan Highway, Vermillion Parish. W. E. Atkinson, State Highway Engr., New Orleans.

★**Columbus, Miss.**—Gus E. Hauser, Jr. Highway Engr. writes contracts were awarded as follows Mar. 24 by Comrs. of Lowndes County: To R. C. Searcy & Co. Houston, for hauling and placing macadam, commercial material $17,405 and local material $22,231; total $39,636; the Novaculite-Paving Co., Tamms, Ill., will furnish material for 12 miles of road, and the Memphis Stone & Gravel Co., Memphis, Tenn., material for 10 miles of road.

Jackson, Tenn.—City Council voted to pave with bitulithic Highland Ave. and Royal St.

Bids desired Apr. 20 by W. F. Alexander, City Recorder, for $20,460 bonds, of which $13,640 are street improvement bonds.

Louisville, Ky.—Bids desired until Apr. 12 by Bd. Pub. Wks., (R. G. McGrath, Secy.,) for paving several alleys; also oiling macadam streets on an approximate basis of 1,000,000 sq. yds.

Pineville, Ky.—About $250,000 county road bonds have been sold.

Akron, O.—Bids desired until Apr. 19 by Co. Comrs. (C. L. Bower, Clk.) for paving the concrete bridge on N. Howard St. extension between Akron and Cuyahoga Falls. Wilbur J. Watson & Co., Consulting Engrs., Leader Bldg., Cleveland.

Bids desired (same place as above) until April 26 for grading, curbing and paving Richfield Rd.

Canton, O.—Bids desired until Apr. 14 by County Commissioners, (C. L. Stoner, Clk.,) for furnishing material and improving Navarre-Justus Rd., a distance 2.49 miles, involving 12,496 cu. yds. excavation, 21,898 sq. yds. macadam laid complete; also Waco-Mapleton Rd., involving 6,637 cu. yds. excavation and 19,058 sq. yds. macadam laid complete.

Cincinnati, O.—Bids desired until Apr. 30 by Albert Reinhardt, Clk. Co. Comrs., for cleaning and oiling various roads, Spec. 744 to 746, inclusive, and Spec. 748 to 756, inclusive.

Cleveland, O.—Bids desired until Apr. 28 by Co. Comrs. for improving Berea Rd. W. A. Stinchcomb, Co. Surv.; E. G. Krause, Clk. Comrs.

Bids desired same place as above until Apr. 17 for $15,157 Berea Rd. improvement bonds.

Cleveland, O.—Bids desired until Apr. 17 by County Comrs. (E. G. Krause, Clk.), for improving Clague Rd. No. 2, from Lake Rd. Bay Village to North Ridge Rd., Dover Township.

Columbus, O.—Bids desired until Apr. 20 by Geo. A. Borden, Dir. Pub. Service, for constructing sidewalks on portions of several streets, including Broad, Carpenter, Front Sts., Cleveland, Clinton Heights, Chittenden Aves.

Bids will be received same time and place as above for paving and repaving with brick and asphalt portions of several streets including Bryden Road, Elliott Alley, 18th and Forest Sts., Linden, Neil and Park Aves.

Findlay, O.—Following bids opened by Bd. Public Service for paving Cherry St. —(a) C. B. Hall & Son, Findlay; (b) Haskell & Battles, Painesville: With brick, (a) $10, 189, (b) $10,631; with Westrumite, (a) $9,657, (b) $9,606.

About $99,500 bonds have been sold by County Comrs.

★**Marion, O.**—Contract for paving W. Center St. and Kenton Ave. awarded by City Bd. Control to Jas. C. Drake, at $15,464.

Oak Harbor, O.—Bids desired until Apr. 27 Louis L. Cartensen, Village Clk., for paving Locust St. from the Portage River north to the Lake Shore and Michigan Southern R. R.

Port Clinton, O.—Bids desired until Apr. 26 by County Commissioners, for grading, draining and macadamizing a road in Carroll Township about 2 miles in length. D. L. Marker, Co. Aud.

Rocky River, O.—Bids desired until May 4 by Frank Mirchell, Village Clk., for $9,500 bonds, proceeds to be used to construct concrete sidewalks on North Ridge Rd.

Sandusky, O.—About $108,000 road bonds have been sold by County Comrs.

Toledo, O.—The issue of $200,000 bonds for parks and boulevards has been approved by Council.

Bids desired until May 7 by Chas. J. Sanzenbacher, Co. Aud., for furnishing and delivering surface treatment material known as Glutrin, required in the repair of improved roads and parts of roads.

Gary, Ind.—Bids desired by H. C. Francis, City Clk., until Apr. 19, for paving with modern city pavement on sand stone or flag foundation Jackson St. to cost $7,070, and alley No. 2 W at a cost of $18,020; cement curb and gutter. Wm. J. Fulton, City Engr.

Bids desired by City Clark, until Apr. 12, for improvement of Alley No. 2W. from 10th to 20th St., to include 6000

★Items marked thus give the names of parties awarded contracts.

sq. yds. brick on sand base or 1 course concrete; 15,000 sq. yds. sidewalk; 3500 cu. yds. grading, 6740 lin. ft. curb; with catchbasins, inlets, etc.; estimated cost, $13,600; also for improving Jackson St., 43rd to 45th about 990 sq. yds asphalt macadam, 1400 sq. yds. sidewalks, 2600 lin. ft. combined curb and gutter, 4000 cu. yds. grading; estimated cost, $6,000.

All action has been recinded on 44th Ave. paving from Madison to Harrison St. and Jefferson St. from 25th to 27th Ave.

★**Vincennes, Ind.**—Contract for paving with asphalt Broadway awarded to Premier Constr. Co., Indianapolis, at $44,970.

River Rouge, Mich.—Bids desired until Apr. 13 by Louis Laginess, Village Clk., for grading, paving and curbing portions of James, Linden and Myrtle Sts., requiring about 9765 cu. yds. reinforced concrete pavement. Mason L. Brown & Son, Engrs., Chamber of Commerce.

Saginaw, Mich.—City Council voted to pave 2½ miles streets; cost $125,000.

East St. Louis, Ill.—Lowest bid opener by Bd. Local Improvements for paving with brick 25th St. submitted by Keeley Bros., East St. Louis, at $28,843.

Elgin, Ill.—City Comrs. voted to pave with brick N. State St., at cost of $28,000.

★**Highland, Ill.**—Louis Lory, Jr., Town Clk., writes contract was awarded Mar. 27 for paving Arkansas Road, to Stoeker Co., Highland, at $10,802. Work includes one course concrete, 5800 ft. long, 9 ft. wide, with 3 ft. macadam shoulders.

Illinois.—The following are lowest bids opened by State Highway Comn., Springfield, Mar. 30, for State aid work:

Morgan County, concrete pavement, 4466 ft. Herrich Constr. Co., Carlinville, Ill., $8,073.

Clinton County, 5550 ft. concrete pavement, E. M. Johnston, St. Elmo, $8,490.

Effingham County, 7560 ft. concrete pavement, E. M. Johnston, St. Elmo, $7,740.

Piatt County, 5000 ft. brick pavement, Metz & McVey, Gary, $11,475.

Peoria County, 10,452 ft. of 15-ft. concrete pavement. Ajax Eng. Co., Gary, $24,745.

Union County, 3200 ft. gravel pavement, Meyers & Thomas, East St. Louis, $3,045.

★**Peoria, Ill.**—Contract awarded Mar. 29, for paving Linn St. with brick to A. H. Thompson, of Peoria.

Eau Claire, Wis.—Bids reported desired until Apr. 14 by J. C. Fennessey, City Clk., for concrete pavt. on various streets aggregating 10,200 sq. yds.

Plymouth, Wis.—Bids desired by H. A. Lueake, City Clk., until May 4 to furnish and lay 21,000 sq. yds. pavt. on concrete foundation, 10,745 ft. curb and gutter and other accessories. Bids will be taken on reinforced concrete, asphaltic concrete, vitr. pav. brick and asphaltic macadam.

Sparta, Wis.—E. G. Kowitz, Chmn. Street Com., writes all bids opened Mar. 17 for 4333 sq. yds. brick paving have been rejected, and city will do the work.

Sturgeon Bay, Wis.—Bids reported desired until Apr. 12 by J. G. Langenak, City Clk. for 20,000 gals. No. 4 asphaltum road oil and one air pressure oil distributor of 600 gals. capacity.

Cedar Rapids, Ia.—All bids opened by City Council Mar. 26 for paving with asphalt concrete on 12th, 16th, 17th, 19th Sts. have been rejected. According to reports, new bids will be received.

Forest City, Ia.—Theo. S. De Lay, Engr., Creston, writes that no bids are to be opened Apr. 16 by Town Clerk for paving with concrete, asphaltic concrete or brick, as previously reported; Apr. 16 is the date set for hearing objections to proposed resolution of necessity and no date has been set for receiving bids, nor has any advertisement for bids been published as yet.

★**Red Oak, Ia.**—Contracts awarded Mar. 31 for paving 5th, 2nd and other streets as follows: Wilston Constr. Co., Fisher Bldg., Chicago, for asphalt concrete at $1.52 per sq. yd.; S. P. Hanson & Son, Sioux City, cement concrete, $1.23 per sq. yd., and to Wilson Concrete Co., Red Oak, straight curb, 30 cts. per lin. ft. Richard Roberts, City Clk.

★**Vinton, Ia.**—Contract has been awarded for paving 10 city blocks (bids opened Mar. 20) to F. K. Hahn, Cedar Rapids, at the following bid: 1800 cu. yds. grading, 40 cts.; 2700 lin. ft. 36-in. curb and gutter, 53 cts.; 42 lin. ft. 24-in. curb and gutter, 44 cts.; extra sand in place, per cu. yd., $1.50; extra macadam in place, per cu. yd., $2; extra concrete in place, per cu. yd., $6.50; 9200 sq. yds. vertical fibre brick paving on 4-in. concrete foundation, asphalt fill; total about $19,539. W. E. Klingaman, City Clk.

★**Manhattan, Kan.**—Contract awarded Mar. 30 for paving 19 blocks to Watts & Ammerman, of Concordia. Vertical fiber brick and asphaltic concrete will be used. Fred. Walters, City Engr.

Newton, Kan.—Bids desired about May 15 for 30,000 sq. yds. of various kinds of paving. Selection of material to be made at opening of bids. F. E. Devlin, City Engr.

Yankton, S. D.—Bids reported desired until Apr. 19 by John W. Summers City Clk., for grading and paving Douglas Ave. with Portland cement, approximately 3520 sq. yds.

Missoula, Mont.—About $100,000 will be spent by Forest Service Dist. No. 1 (Frank Bonner, Secy.) and County Comrs. for constructing roads.

Kansas City, Mo.—Bids desired until Apr. 13 by Edw. F. Webster, Acting Secy. Bd. Pub. Wks., for constructing Portland cement pavement on portions of Latour, Newton and other streets and avenues.

★**Weston, Mo.**—Contract awarded Mar. 27 for paving Spring, Short and other streets, to Maley & Kelley, Massachusetts Bldg., Kansas City, Mo.

Plans are under way for 12 additional blocks of paving. Chas. E. McCrae, Engr.

Sheridan, Ark.—About $160,000 Road Improvement Dist. No. 1 bonds have been sold by County Comrs.

Pawnee, Okla.—About 25,000 sq. yds. concrete or brick paving contemplated. Engineers, Benham Eng. Co., Oklahoma City.

Concrete, Wash.—It is proposed to pave Main St. about 5,300 sq. yds. with 1 or 2 course concrete. Address Engineer A. L. Strong, Mt. Vernon.

Edmonds, Wash.—Bids will be received about Apr. 20 for grading and graveling ½ mile streets; cost $37,000. Plans prepared by Coast Engineering Co., Everett.

Montesano, Wash.—Bids reported desired until Apr. 19 by County Auditor for clearing, grubbing, grading and constructing culvert and trestle bridge on Wynooche-Wiskah County Rd., a distance of 8470 ft.; also clearing, grading, grubbing and planking about 4014 ft. and 7648 ft. roadway.

Seattle, Wash.—The Bd. of Pub. Wks. has approved plans and specifications for improvement of W. Lander St. from the E. Waterway to Whatcom Ave., at an estimated cost of $11,200; improvement of Valley St. and others by paving, cost $37,000; N. 45th St. from Woodland Park Ave. to Fremont Ave. by paving, cost $9,700; 10th Ave. N. E. and others by grading, cost $13,200; East Valley St. by paving, cost $10,600.

Lowest bids opened by Bd. Pub. Wks. for paving submitted as follows: E. Mercer, St., T. McLellan, Globe Bldg., Seattle, $34,437, and Ewing St., R. G. Stephenson, 1327 Ewing St., $20,562.

★Contracts for paving awarded by Bd. County Comrs. as follows: Grade and gravel 10 miles of Sunset Highway, between Renton and Issaquah, to Henry Brice, Seattle, at $63,445, and for grade and graveling Osceola Rd., from Auburn southeast toward Osceola, to Washington Paving Co., Tacoma, at $42,194.

Bids reported desired until Apr. 26 by County Comrs. (Byron Phelps, Clk.), for constructing Renton-Junction-Orilla Rd., being Bond Issue Rd. No. 11. Probable cost, $60,000.

Bids reported until Apr. 27, same place as above, for constructing Auburn-Enumclaw Rd., Div. No. 2, being portion of Bond Issue Rd. No. 9. Probable cost $50,000.

Bids desired until Apr. 20, same place as above, for constructing Redmond-Snoqualmie Rd., known as Permanent Highway No. 1.

Spokane, Wash.—Plans have been approved and bids will be received about Apr. 25 by County Cmrs. for macadam pavement on Rockford-Waverly Rd. and Dennison-Deer Park Rd., cost about $200,000.

Walla Walla, Wash.—M. A. Power, City Clk., writes that bids will be opened Apr. 20 for paving S. 9th St., N. 2nd St., Whitman and Palose Sts., Isaac Ave. and Wellington St.

Albany, Ore.—City Engineer has been authorized to prepare plans for paving with asphaltic concrete 16 blocks.

West Linn, Ore.—It is reported that this city will spend $75,000 for new roads and bridges.

Bakersfield, Cal.—Bids desired until Apr. 13 by Bd. Superv. for grading, paving and constructing pile bridges and culverts on Div. 5, Sect. 2, Bakersfield-McKittrick Road, a distance of about 8¼ miles.

California—Bids reported desired until Apr. 26 by State Highway Comn., Sacramento, for constructing State Highways as follows, all in Portland cement concrete base:

Monterey County, 24 3/10 miles.
Sonoma County, 6 4/10 miles.
Contra Costa County, 5 3/10 miles.

★**Riverside, Cal.**—Contract awarded by County Bd. Superv., Riverside, as follows: To B. R. Davisson, of Monrovia, on Mar. 10 for improving Route No. 17 and portion of Route No. 18, Bonning to Palm Springs, consisting in part of grading, draining, surfacing with stone and oiling, approximately 22.6 miles of roadway; and to J. M. Montgomery Constr. Co., on Mar. 24, for paving with concrete Route No. 5, Div. A, about 11.8 miles.

Lapwai, Idaho.—Bids will be received about Apr. 20 by Town Clerk for macadamizing Main and cross streets here; also for constructing cement walks on Main St.

Ottawa, Ont.—Bids will be called for shortly for Bank St. pavement, Echo Drive to Grove St., of asphalt and stone block; estimated cost $60,000. F. C. Askwith, Acting City Engr.

Welland, Ont.—There will be built this year 34 miles of county good roads, 24 miles by contract and 10 miles by county outfit. Robt. Cooper, County Clk.

West Toronto, Ont.—Bloor St. is to be paved with brick and asphalt at cost of about $73,313, by city.

STREET CLEANING AND GARBAGE DISPOSAL.

Items Arranged Geographically

★**Yonkers, N. Y.**—Contract awarded Mar. 30 by Bd. of Contract and Supply for erection of incinerating plant to Booth Constr. Co., of Yonkers, at $51,512 (bids opened Mar. 15).

★**Dayton, O.**—J. E. Barlow, Dir. Dept. Pub. Service, writes that contracts for equipment for garbage disposal plant (bids opened Feb. 26) have been awarded to Gem City Boiler Co., Dayton, and the Kilby Mfg. Co., Cleveland. The percolator equipment, although bid upon by the Gem City Boiler Co., is to be furnished by the Bartlett & Snow Co., of Cleveland, using a Peck revolving percolator.

Chicago, Ill.—Citizens voted Apr. 6 to issue $700,000 bonds for completing garbage reduction works.

Lincoln, Neb.—City Council considering issue of $50,000 bonds for garbage disposal plant and $50,000 for park extension.

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Items Arranged Geographically

Bulkhead—Boston, Mass.—The Metropolitan Park Comn., reported to be considering construction of concrete bulkhead at Revere Beach, to cost $30,000, and Nantasket Beach, to cost $6,000.

Dredging—Falmouth, Mass.—Bids desired until Apr. 15 by State Bd. Harbor and Land Comrs., Boston (Wm. F. Williams, Ch. Engr.), for dredging a channel 9 ft. deep and basin 8 ft. deep at mean low water in Deacons Pond Harbor, Falmouth, requiring the dredging of 26,000 cu. yds. of material.

Channel Construction — Waterbury, Conn.—Bids reported desired until Apr. 14 by Wm. H. Moher, City Clk., for constructing a 300 ft. masonry channel for Great Brook, 7 ft. deep and 10 ft. wide, having a reinforced concrete slab top. Robt. A. Cairn, City Engr.

★**Jetty—Bradley Beach, N. J.**—Contract awarded Mar. 22 for constructing jetty and bukhead to Logan Constr. Co., New York. Chas. H. Gant, Deputy City Clk.

Pumping, Etc.—Burlington, N. J.—Walted W. Maus, City Clk., writes that no improvements are contemplated to water works, but new pumps and motors are contemplated at the drainage plant. Engineer, H. S. Haines, of Burlington.

Meadow Development—Newark, N. J.—The Bd. of Works (Morris R. Sherrerd, Ch. Engr.) has asked State Legislature for permission to use $500,000, in addition to the $2,000,000 already expended or obligated, to be used for meadow development, including a new bridge over Central R.R. at Port Ave., a freight transfer shed, sewers, paved streets, a 400-ft. channel, etc.

Bulkhead—Stone Harbor, N. J.—Borough Council reported to be considering issue of $160,000 bonds to build a bulkhead from 83d St. to 111th St. along ocean front, with jetties at front of 9 streets.

Dam—Harmony, Pa.—The Pittsburgh, Harmony, Butler & New Castle Railway has employed Chester & Fleming, Pittsburgh, to proceed immediately with surveys for two new impounding dams on Connoquenessing Creek, which will be constructed this summer.

Drainage—New Bern, N. C.—Bids desired by Geo. D. Dail, Secy. Bd. of Drainage Comrs., until May 1 for drainage improvements, to consist of drainage canals, drain sewers, inlets, tide gates, levees, etc.; total amount of excavation approximately 37,000 cu. yds. for canals, ranging in width from 3 to 20 ft.; piping approximately 6000 lin. ft., ranging in size from 6 to 24 in., all material and labor to be furnished by contractor. R. R. Eagle, Engr., 409 Elks Temple, New Bern.

Bids will also be received same time and place for the purchase of $20,000 drainage district bonds.

★**Dredging — Charleston, S. C.** — Bids were opened Mar. 19 by Maj. G. A. Youngberg, Corps Engrs., U. S. A., Charleston, for dredging in Ashley River, S. C., as follows: (a) price per cu. yd. (b) totals: Globe Dredging Co., Savannah, Ga. (a) 18.8 cts.; (b) $10,340; Atlantic Gulf & Pacific Co. (a) 16.38 cts.; (b) $9,009; Ely Dredging & Constr. Co., Savannah, Ga. (a) 17.4 cts.; (b) $9,570; Simon-Mayrant Co., Charleston (a) 12¼ cts.; (b) $6,737. (Recommended for award.)

Levee Work—Augusta, Ga.—Bids desired until Apr. 27 by City Council for furnishing material and constructing an earth levee along Savannah River below city known as Sects. 5 and 6 approximately 500,000 cu. yds. in each sect. Nisbet Wingfield, Ch. Engr.

Dredging—Winter Haven, Fla.—Bids desired until Apr. 24 by Bd. Directors Twenty Lakes Boat Course Club (L. Burns, Chmn.) for dredging Twenty Lakes Boat Course Canal. Atlantic Eng. Co., Engrs., Savannah, Ga.

★**Earthwork—New Orleans, La.**—Contract awarded by Maj. W. J. Caples, Corps Engrs., U. S. A., Mar. 25 for earthwork as follows: Lower Tensas Levee Dist., to Gibson, Hamilton Co., Desoto Hotel, New Orleans, 208,000 cu. yds., 17.37 cts. per cu. yd., total $36,129; Atchafalaya Levee Dist., to Dameron-White Co., Ltd., 1208 Hibernia Bank Bldg., New Orleans, La., 101,000 cu. yds., at 11.89 cts. per cu. yd., total $12,009.

Ditch—Bucyrus, O.—Bids desired Apr. 29, by L. P. Michaelis, Co. Surveyor, for constructing Mud Run ditch.

Creek Improvement — Canton, O.—County Engr. is reported to have completed surveys for improvement of Sugar Creek.

Steel Locks for Dam 29—Cincinnati, O.—Bids desired until Apr. 27 by Lieut. Col. H. Jervey, Corps Engrs., U. S. A., Cincinnati, O., for furnishing and erecting steel lock gates for Dam No. 29, Ohio River, advertised in Engineering Record.

★**Dredging—Indiana Harbor, Ind.**—Contract awarded Mar. 29 by Lieut.-Col. W. W. Judson, Corps Engrs., U. S. A., for dredging in Indiana Harbor to Greiling Bros. Co., Green Bay, Wis., at 14.5 cts. per cu. yd.; total $5,800.

Levee—Muscatine, Ia.—City Council has appropriated $12,000 for levee improvement.

Irrigation Work—Browning, Mont.—Bids desired until Apr. 30 by U. S. Reclamation Service, Great Falls, for construction of structures on St. Mary Storage Unit, Milk River Project, involving about 6000 cu. yds. of excav., 450 cu. yds. concrete and 900 cu. yds. excav. work is situated in Blackfeet Indian Reservation, about 40 miles northwest of Browning.

Irrigation Work—Saco, Mont.—Bids desired until May 12 by U. S. Reclamation Service, Malta, Mont., for about 95,000 cu. yds. of canal excav., located about 10 miles from Saco, on Great Northern Ry., advertised in Engineering Record.

Creek Improvement—Kansas City, Mo.—The Council Com. has recommended an expenditure of $3,995,000 for improvement of Brush Creek, including $100,000 for improving the sewage condition of the creek.

Dike and Revetment—Kansas City, Mo.—Bids desired until May 10 by Lieut. Col. Herbert Deakyne, Corps Engrs., U. S. A., for timber dike on Missouri River about 12 and 20 miles below Kansas City; also for constructing standard revetment on Missouri River about 24 miles below Kansas City, both proposals advertised in Engineering Record.

★**Earthwork—St. Louis, Mo.**—Contract reported awarded by U. S. Engineer, St. Louis, for 10,000 lin. ft. riverbank protection to Rust & Swift, St. Louis, Mo., at $124,112. (Bids opened Mar. 10.)

Drainage Work—St. Louis, Mo.—Bids desired until Apr. 26 by Maj. Clarke S. Smith, Corps Engrs., U. S. A., Mississippi River Levee Comn., 1311 International Life Bldg., St. Louis, Mo., for constructing about 5000 cu. yds. earthwork in the East Cape Girardeau and Clear Creek Drainage Dist., Ill.

Drainage Work—Osceola, Ark.—Bids desired until Apr. 14 by Bd. Comrs. Grassy Lake and Tyronza Drainage Dist., No. 9, Mississippi County, Ark., at Osceola (S. E. Simonson, Chmn.) for following: Contract 29-A—7300 cu. yds. ditch excav., near Osceola; Contract 29-B—installation of 62 ft. 12 in. sewer 50 ft. 18 in., and 198 ft. 24 in. with 20 cu. yds. concrete bulkheads at Osceola; Contract 31—21,000 cu. yds. levee embankment, about 8 miles northeast of Marked Tree; Contract 33—constructing 2 wooden bridges containing about 600 ft. pile trestle across Ditch No. 1 about 4 miles northeast of Marked Tree. Morgan Eng. Co., Engrs., Memphis, Tenn.

★**Jetty and Dike Work—Galveston, Tex.**—Contract awarded by Lieut.-Col. C. S. Riche, Corps Engrs. U. S. A., Galveston, for jetty and dike work at Aransas Pass, Tex., to Chas. Clarke & Co., Galveston, at $282,692 (bids opened Mar. 16) Unit prices of this work in Engineering Record Mar. 27.

Ditches—Everett, Wash.—Plans reported completed by Coast Eng. Co., Everett, for construction of about 9¾ miles of open ditches in Drainage Dist. No. 4, involving about 35,000 cu. yds. of material, to cost $50,000, and bids for the work will be received early in May. Plans include drainage of about 56,000 acres between Monroe and Snohomish.

★**Dykes—South Bend, Wash.**—Contract awarded Mar. 30 by Comrs. of Diking Dist. No. 2, South Bend (H. A. Bibbs, Engr.) for constructing a system of dykes to Cowlitz Co., of Portland, Ore., at $61,500. Other bids: Willapa Constr. Co., of Raymond, $63,500; Hans Pederson Constr. Co., Seattle, $63,000.

★*Items marked thus give the names of parties awarded contracts.*

Irrigation — Medford, Ore. — Wellborn Beeson, of Talent, reported interested in an irrigation system to furnish water for approximately 1000 acres, cost $16,000. Water to be brought from Bear Creek, through Phoenix Mill ditch; a 5-mile ditch to be constructed.

By-Pass—Sacramento, Cal.—Frank C. Miller, City Engr., writes that plans for Brytes by-pass have been submitted to State Reclamation Bd. and U. S. Engr. Corps for approval. Construction will begin soon after approval of plans.

★**Irrigation — Provo, Utah.** — Contract awarded by U. S. Reclamation Service to Spanish Fork Grading Co., Spanish Fork, for constructing laterals 32 and 33, Shrewsbury Valley Irrigation project, Utah, at $22,196. The work involves excavation of 12,800 cu. yds. material and placing of 2100 cu. yds. of reinforced concrete.

Reclamation Work—Vancouver, B. C.—The Dominion Government is reported to have granted to the Vancouver Harbor Comn. property for reclamation of tide flats in center of False Creek. The reclaimed area which extends on both sides of Granville St. bridge will be enclosed by a sea wall and bulkhead built 50 ft. in from main water channels on north and south sides, the 50 ft. strip to be used for wharf purposes.

ELECTRIC RAILWAYS.

Items Arranged Geographically

New York, N. Y.—The Public Service for the First Dist., New York, has adopted a resolution to engage J. G. White Co., New York, as Consulting Engineers, to work with engineering department of Comn. in perfecting some new system of ventilation for subways now under construction in New York City.

New York, N. Y.—See "Bridges."

Waynesburg, Pa.—Plans being prepared by Waynesburg & Blackville St. Ry. Co. for constructing line between Waynesburg and Blackville, W. Va..

★**Bonner Springs, Kan.**—Contract for grading 20 miles Kansas City, Kaw Valley & Western Ry. between Bonner Springs and Lawrence, Kan., awarded to S. Dolman Sons, Topeka at about $100,000. Four bridges from 60 to 160 ft. in length and 6 smaller ones over culverts will be contracted for later.

Hutchinson, Kan.—Arkansas Valley Interurban Ry. Co. (Chas. D. Bell, Ch. Engr., Wichita) contemplates constructing an extension to Halstead.

Lewiston, Idaho.—Lewiston - Clarkston Transit Co. will soon award contract for constructing 2 miles new tracks and 2 turnouts in Lewiston. H. C. Hartung, Lewiston, Gen. Mgr.

Moncton, N. B.—Moncton Tramways Electric & Gas Co., Ltd., is considering constructing 4 mile extension to Fox Creek.

RAILROADS.

Items Arranged Geographically

Reading, Pa.—The Directors and the Streets Com. of Chamber of Commerce have decided to engage Wm. H. Dechant, 536 Penn St., to make drawings of several plans suggested for abolition of the 7th and Penn Sts. grade crossings.

★**Roanoke, Va.** — Contracts reported awarded by Norfolk & Western Ry. Co., for construction of the Farmville-Pamplin cut-off, about 20 miles long, to the following contractors: Paterson, Moran & Co., New York; Robt. Grace Constr. Co., Pittsburgh, Pa.; Rheinhart & Dennis, Charlottesville Va., and J. J. Sheehan, Roanoke; total cost about $1,000,000.

Brooklet, Ga.—State R. R. Comn. has granted the Shearwood Railroad Co. (W. S. Saffold, Supt., Brooklet) permission to issue about $305,000 stocks and bonds, to be used for purchasing railroad now owned by the Shearwood Lumber Co. and operated out of Brooklet; also for the purpose of extending this road for a distance of 4½ miles northeast from Brooklet and to extend it southward to Plaxon, making a road extending for 30 miles.

Gary, Ind.—Press reports state that the New York Central R.R. Co. will build extension railroad yards at Gary.

Morton, Wash.—It is reported that the Tacoma-Eastern R.R. Co. (E. O. Reeder, Ch. Engr., Seattle) will build down Tilton River, west of Morton, to connect with road of Onalaska Lumber Co., which has erected a saw mill 21 miles west of Morton.

Portland, Ore.—It is reported that the Oregon-Washington Railroad & Navigation Co. (J. R. Holman, Ch. Engr., Portland) will spend $311,300 in improvements and betterments throughout Oregon and Washington, including $60,000 for round house at Walla Walla, Wash.

PUBLIC BUILDINGS AND SCHOOLS.

Items Arranged Geographically

Concord, N. H.—Bids desired until May 17 by O. Wenderoth, Superv. Archt., Washington, D. C., for extension, alterations, etc., of the U. S. Post Office at Concord, advertised in Engineering Record.

Brattleboro, Vt.—Following are four lowest bids opened by Superv. Archt., Washington, D. C., March 22, for erecting U. S. Post Office at Brattleboro: (a) limestone; (b) sandstone; (c) granite; E. T. Abbott Constr. Co., New York (a) $94,345; (b) $97,400; (c) $102,900; John Lowry, New York (a) $94,870; (b) $97,670; (c) $104,500; Westchester Eng. Co., White Plains, N. Y. (a) $96,429; (c) $105,929; Chas. E. Currier Co., Boston, Mass. (a) $98,157; (b) $99,814; (c) $106,415. Geo. B. Wills & Co., New York (b) $99,765.

Boston, Mass.—Plans completed by Edw. T. Graham, 20 Beacon St., for the new Cambridge City Hospital, to cost $175,000.

Foxboro, Mass.—House has passed a bill appropriating $131,500 for improvements at Foxboro State Hospital, of which $70,000 is to be used for a new building.

Lawrence, Mass.—Reported bids desired until Apr. 20 by City Council for erecting the Oliver School. Jas. E. Allen, Archt., 283 Essex St.

Maynard, Mass.—Reported bids desired Apr. 19 by School Com. for erecting a high school costing $60,000.

Salem, Mass.—Bids desired Apr. 14 by Salem Rebuilding Comn. (E. W. Lougley, Chmn.) for erecting an elementary school on Lafayette St. J. E. McLaughlin, Archt., Boston, Mass.

Swampscott, Mass.—Bids are desired at once by Jas. W. Santry, Secy. Bldg. Com., for erection of brick addition to high school; cost about $45,000.

Hartford, Conn.—Public Market Comn. is considering erection of a municipal market costing about $100,000.

Lowest bid opened Mar. 30 by Bd. Contract & Supply, for steel work on the New Municipal Building was submitted by Crown Metal Constr. Co., 18 Asylum St., at $27,000.

New Haven, Conn.—Bids desired until May 14 by G. T. Hewlett, Secy. Bd. Educ., for furnishing material and making alterations and additions to Morris Cove School, also brick addition to Abraham Lincoln School. Brown & Von Beren, Archts., Chamber of Commerce Bldg.

New York, N. Y.—Plans prepared by Louis Allen Abramson, 220 5th Ave., for 4-story semi-fireproof hospital to be erected on Charlotte St. and Crotona Parkway for the Bronx Hospital Assoc., at a cost of about $300,000. Dr. Alex. Goldberg, Pres.

★**Rochester, N. Y.**—Contracts have been awarded by Bd. Educ. for erection of addtion to Whitney School No. 17 (bids opened Mar. 29): Mason and carpenter work to W. F. Martens & Co., $53,877; heating and ventilating to Wm. F. Devendorf, $18,498; plumbing to Wright & Alexander Co., $1,978; electric work to Fish & Horton Co., $2,337; sprinkling system to Wright & Alexander Co., $3,489, and vacuum cleaning system to Wheeler-Green Electric Co., $1,243. Edwin S. Gordon, Archt., Bd. Educ.

Rockville Center, L. I., N. Y.—Bids reported desired until Apr. 12 by Bd. Educ. for erecting a 2-story school, to contain 9 rooms and kindergarten. Probable cost $40,000. Blanchard & Barnes, Archts., 15 E. 40th St., New York.

Troy, N. Y.—Bids reported desired until Apr 15 by Bd. Directors (Paul Cook, Pres.) for erecting an annex to the Leonard Hospital, North Troy, to cost about $40,000.

★**Walden, N. Y.**—Contract for erecting the municipal building awarded to Campbell & Dempsey, of Kingston, at about $55,000.

★**Yorktown Heights, N. Y.**—Contract for erecting 7 cottages at N. Y. State Training School awarded to Central Bldg. Co., Worcester, at about $110,000. Lewis F. Pilcher, State Archt., Albany.

Leonia, N. J.—Citizens voted $48,000 for erecting an 8-room addition to the high school.

Ernest & Sibley, Palisade, are preparing preliminary drawings for above school.

Millville, N. J.—Reported lowest bid opened recently by School Bd. for erecting 2-story brick and stone school was submitted by Berry-Goodwin & Co., Philadelphia, Pa., at $69,750. Arnold Moses, Archt., Philadelphia.

Newark, N. J.—Bids desired until Apr. 20 by Lathrop Anderson, Pres. Bd. Trustees, in care of County Bd. Freeholders, Newark, for erecting a parental school on Sussex Ave. and Hecker St. to cost between $40,000 and $50,000. Architects, John H. and Wilson C. Ely, Firemen's Bldg., Newark.

Council has sustained the veto of the Mayor on the awarding of the contract for the new Center Market.

Bids desired until Apr. 27 by Bd. Educ. (R. D. Argue, Secy.) for erecting addition to Oliver St. School, repairing and making watertight the water proofing of Newark Normal School.

Trenton, N. J.—Bids desired until Apr. 29 by Com. on Grounds and Bldgs., Bd. Educ., at office of Wm. A. Poland, Bus. Mgr., for furnishing material and erecting a brick and stone school, to be known as Junior High School No. 1; separate bids for heating, plumbing and electric work.

West New York, N. J.—Plans being prepared by Gregory B. Webb, 104 W. 42d St., New York, and Karl F. J. Seifert, 104 W. 42d St., New York, Assoc. Archt., for Public School No. 6, to be erected at Bway. and 18th St., for Bd. Educ., at a cost of about $175,000.

★Contract for erecting 2-tory stone and brick parochial school at 22d and Polk Sts. for St. Mary's R. C. Church awarded to Froman Constr. Co., 5395 Boule.; cost about $50,000.

Coatesville, Pa.—Dr. H. E. Williams, Secy. Bd. Educ., writes that following are 4 lowest bids opened recently for erecting high school: Chas. D. Burns, Phoenixville, $89,875; W. J. Elliott, Coatesville, $89,985; Wilbert Beaumont, Philadelphia, $95,500; W. H. Jones, West Chester, $103,948.

Crafton, Pa.—Bids desired until Apr. 15 by School Bd. (Theo. A. Keifer, Secy. Township School Bd., 104 Mont Clair St., Crafton Heights, Crafton, for erecting a grade school on Ovey Ave., Chartiers Township, including heating, ventilating and plumbing.

★**Holmesburg, Pa.**—Contract awarded Mar. 31 by Bd. Directors, Philadelphia County Prison, Philadelphia, for erecting the 1-story 50x465 ft. ward building and 2-story stone storehouse at the Prison at Holmesburg to H. E. Baton, 12 and Sanson Sts., Philadelphia, at $116,797. Philip Johnson, Archt., Philadelphia.

Lansford, Pa.—Plans being prepared by Clyde S. Adams, Philadelphia, for a school to cost $175,000. Address School Bd.

Leighton, Pa.—Reported erection of a $100,000 school is under consideration.

McKeesport, Pa.—Later official reports state bids will be opened Apr. 22 by W. T. Norton, Secy. Bd. Educ., for erecting a technical high school, including heating, plumbing and electrical work. Vrydaugh & Wolfe, Archts., 347 5th Ave., Pittsburgh.

Philadelphia, Pa.—Plans being prepared for an extension which it is proposed erecting at the Univ. of Pennsylvania Museum to cost $500,000.

Permit issued to Thos. Reilly, Contractor, 1616 Thompson St., for 3-story concrete, stone, brick and steel school to be erected at Seymour and Knox Sts.; cost, $35,315.

Bd. Educ. has sold $2,000,000 school bonds.

Permit granted to Edw. L. Fonder, 1116 Land Title Bldg., for erecting 3-story concrete, brick and steel school at Oakland and Wakeling Sts., to cost $500,000.

Pittsburgh, Pa.—Preliminary plans of Geo. S. Orth & Bros., Farmers Bank Bldg., for the Homewood Brushton High School, Murtland Ave. and Monticello St., have been approved by the Instruction Com. of the Bd. Educ. The building complete is to cost $700,000, but only one section costing $265,000 is to be erected at this time.

Plans being prepared by E. B. Lee, 307 4th Ave., for additions to the Pittsburgh Hospital at Frankstown Ave. and Washington Boule., to include administration building, 7 stories, 50x100 ft., chapel 5-story, 40x75 ft., and general alterations to present building; total cost $125,000.

Bids desired until Apr. 13 by Robt. Swan, Dir. Dept. Pub. Wks., for erecting an underground public comfort station at Penn Ave. and Frankstown Ave., including plumbing, heating and electric wiring.

★**Rochester, Pa.**—Contract for erecting high school awarded to McDonald & Hartman, Rochester, at $63,650. Next three lowest bids: R. B. McDanel & Co., New Brighton, $71,940; Cook & Anderson, Beaver, $72,950; and John A. Miller, Rochester, $76,436. Heating, ventilating, plumbing and electric work to be let later on. G. H. Karcher, Secy. School Dist.

Tarentum, Pa.—School bonds amounting to $100,000 have been sold.

Upper Darby, Pa.—School Bd. of Upper Darby Township has secured site and is having plans prepared for a school costing $50,000.

★**Warren, Pa.**—Contract for erecting the Wetmore Memorial Library awarded to Geo. A. Fuller Co., of New York, N. Y. Building to be 2-story marble and stone and cost $150,000. Warren & Wetmore, Archts., New York.

Smyrna, Del.—Lowest bid opened Mar. 29 by Superv. Archt., Washington, D. C., for erecting U. S. Post Office was submitted by Potters Lumber Co., East Liverpool, O., at $25,832 for limestone or $26,000 for sandstone.

Washington, D. C.—Bids desired until Apr. 15 by Comrs. D. C. (Oliver P. Newman, Chmn.), for erecting a 16-room school, No. 175, Warder St. N. W., between Newton and Otis Sts.

Radio, Va.—Bids desired until Apr. 17 by H. R. Stanford, Ch. Bureau of Yards & Docks, Navy Dept., Washington, D. C., for erecting a 2-story brick office building at Naval Radio Station, Radio, Va., according to Specification No. 2141.

Huntington, W. Va.—Bids desired until Apr. 12 by Bd. Educ., Independent Dist. of Huntington (J. K. Oney, Secy.), for furnishing material and erecting an 8-room grade school at 7th Ave. and Johnson Lane. Verus T. Ritter, Archt., Huntington.

Charleston, S. C.—Reported bids about to be asked by Public School Comrs. for remodeling Crafts School. D. B. Hyer, Archt., Charleston.

Columbia, S. C.—Citizens voted Mar. 23 to issue $250,000 bonds for erecting school buildings, and bids for the bonds will be received Apr. 23. F. S. Drehee, Supt. School Bldgs.

Darlington, S. C.—Bids desired until Apr. 15 for erecting 2-story high school, 60 x 125 ft., from plans of Wilson & Sompayrac, of Columbia; cost with equipment $40,000.

Ridgeland, S. C.—Bids desired until Apr 14 at office of S. B. Owens, County Supt., for erecting a school in Ridgeland High School Dist. Arthur W. Hamby, Archt., Columbia.

Cedartown, Ga.—Bids desired until May 1 by S. P. Holloway, Mayor, for $50,000 school bonds.

★**Rome, Ga.**—Contracts for erecting the municipal building awarded as follows (bidders all of Rome): General contract to J. F. Dupree & Sons Co., $62,238; Walker Electric & Plumb. Co., heating, $4,475, and plumbing $2,470; electric work, Rome Supply Co., $2,030. A. Ten Eyck Brown, Atlanta, Ga., Archt.

Apalachicola, Fla.—Bids reported desired until May 1 by Bd. Pub. Instruction for erecting a 2-story, 75 x 126 ft. school C. F. Streeter, Archt., Jacksonville.

★**Camden, Tenn.**—Contract for erecting the court house reported awarded to Interstate Constr. Co., Louisville, Ky., at $24,640.

Knoxville, Tenn.—Bids reported desired until Apr. 22 by Miller, Fullenwider & Dowling, Archts., 6 N. Michigan Ave., Chicago, Ill., and Associate Archt., Alfred B. Baumann, Knoxville, for erecting a 2-story and basement, 105 x 75 ft., library. Probable cost, $65,000.

Nashville, Tenn.—Reported time for receiving bids for erecting the medical building at the Vanderbilt Univ. has been extended from Apr. 13 to Apr. 20. Saml. Hannaford & Sons, Cincinnati, O., Archts.

Marion, O.—$30,000 Pleasant Township school bonds sold.

Marysville, O.—Citizens of Union Township voted $65,000 bonds for erecting a school in Milford Center.

Oberlin, O.—Bids reported desired until Apr. 30 by Oberlin College (C. F. Doolittle, Supt. of Bldgs.) and Cass Gilbert, Archt., 11 E. 24th St., New York City, for erecting an art building, 1 story, 100 x 100 ft.

Ravenna, O.—Bids reported desired until Apr. 16 by W. A. Root, Clk. Bd. Educ., Riddle Blk., Ravenna, for erecting a 2-story and basement, 112 x 36 ft., centralized school for Ravenna Township. Probable cost $35,000. Miller & Son, Archts., Dollar Bank Bldg., Youngstown.

★**Tontogany, O.**—Contracts awarded Apr. 2 for erecting high and grade school as follows: General contract, Sereff Bros., Lima, $35,353; plumbing and sewerage, Huffman Conklin Co., Columbus, $3,995; heating and ventilating, Bryce Htg. & Ventg. Co., Toledo, $5,224. W. E. Burgoon, Clk. Bd. Educ. Archts., Howard & Merriam, 8 E. Broad St., Columbus.

★**Willoughby, O.**—Contract for erecting 2-story brick and stone fireproof school awarded by School Bd. to Jas. H. Wells, Philadelphia, Pa., at $65,000. Franz Warner, Archt., Cleveland.

Youngstown, O.—Bids desired until Apr. 30 by C. F. Shipton, Clk. Coitsville Township Bd. Educ., R. F. D. No. 1, Youngstown, for erecting an 8-room brick school on Thorn Hill Ave., also for a 4-room brick addition to present school. C. F. Owsley, Archt., Youngstown.

School bonds amounting to $200,000 have been sold.

Bids are desired until Apr. 26 by Clerk Bd. Educ. for furnishing material and erecting a fireproof school at East Madison Ave. Stanley & Scheibel, Archts., Wick Bldg.

Ft. Wayne, Ind.—Reported contract for erecting the 6-story Hope Hospital will be awarded about the middle of April. Cost, $75,000. Chas. R. Weatherhogg, Archt., Ft. Wayne.

New Albany, Ind.—Bids desired until May 8 by O. Wenderoth, Superv. Archt., Washington, D. C., for the extension, remodeling, etc., of the U. S. Post Office at New Albany

Grand Rapids, Mich.—Bd. Educ. reported to be taking steps to replace the Walker School with a $35,000 building.

Hastings, Mich.—Citizens voted $83,000 bonds to erect school buildings.

St. Joseph, Mich.—No contract was let Mar. 24 by Holabird & Roche, Archts., 104 S. Michigan Ave., Chicago, for erecting a 3-story and basement, 88 x 33 ft. building for Michigan Children's Home, St. Joseph. Plans will be revised.

Chicago, Ill.—Citizens voted Apr. 6 favorably on issue of bonds as follows: Completing contagious disease hospital, $500,000; dormitory at John Worthy School, $60,000; shelter for women and farm colony at Bridewell, $250,000; new fire houses and repairing old ones, $663,000; new police stations and repairs, including sites, $1,190,000.

★*Items marked thus give the names of parties awarded contracts.*

Quincy, Ill.—Following are four lowest bids opened March 26 by Bd. Educ. for erecting the Jefferson School: Buerkin & Kaempen, $62,714; Dieker & Menke, $64,797; Henry L. Vanderhorst, $65,800, and Monmouth Galesburg Constr. Co., $66,967.

Rushville, Ill.—Bids desired until May 4 by Bd. Educ. (Geo. B. Steele, Secy.) for furnishing material and erecting a high school. H. R. Temple, Archt., Champaign.

Virden, Ill.—Bids desired until Apr. 16 by Dr. W. A. Brittin, Secy. Bd. Educ., for erecting a school, also for heating and plumbing. Beal & Ginzel, Archts., Lincoln, Ill.

Milwaukee, Wis.—Reported bids desired by J. C. Finney, Supt. Pub. Bldg., for erecting the second wing of the isolation hospital costing $100,000.

La Porte City, Ia.—Citizens voted $25,000 bonds for erecting high school and gymnasium building.

Manly, Ia.—Citizens voted $40,000 bonds to erect a high school.

Wilton Junction, Ia.—Bids reported desired until Apr. 15 by Bd. Educ. (J. Kelly, Secy.) for erecting a 2-story and basement, 35 x 75 ft., school. Probable cost $27,000. Reimer & Herlin, Archts., First Natl. Bank Bldg., Marshalltown.

Minneapolis, Minn.—Bids desired until Apr. 13 by Bd. Educ. (H. N. Leighton, Chmn.) for erecting a grade school in Johnson School Dist. Stebbins & Haxby, Archts. Rose & Harris, Engrs.

Wellington, Kan.—Bids desired by City Clerk about May 1 for constructing electric light buildings from plans of Benham Eng. Co., of Oklahoma City.

★**Medina, N. D.**—Contract awarded Mar. 29 for erecting school to L. W. Holder, Forman, at $20,000; heating to V. E. Beaudry, New Rockford, at $3,750. Gilbert R. Horton, Archt., National Bank Bldg., Jamestown. Wm. F. Stege, Clk. School Dist.

Aberdeen, S. D.—Bids desired until May 6 by Regents of Education at office of W. M. Oates, Secy. N. N. and I. S. Aberdeen, for erecting a brick and tile warehouse on grounds of Northern Normal and Industrial School at Aberdeen.

St. Joseph, Mo.—The issuing of $650,000 bonds for school buildings is under consideration.

Beaumont, Tex.—Co. Comrs. considering plans for an addition to the court house.

Bryan, Tex.—Bids desired until May 12 by O. Wenderoth, Superv. Archt., Washington, D. C., for the construction (including mechanical equipment, interior lighting fixtures and approaches) of U. S. Post Office at Bryan.

Goliad, Tex.—Members of Roman Catholic Church intend erecting a $50,000 school.

Edmond, Okla.—Governor has signed a bill appropriating $50,000 to erect a library and class room building at the Central State Normal School, and for which plans have been prepared.

★**Lawton, Okla.**—Contract for erecting U. S. Post Office awarded to R. S. Moore, Lafayette, Ind., at $121,946.

Perry, Okla.—Erection of a new court house at a cost of $100,000 reported under consideration by Co. Comrs.

Everett, Wash.—Following are four lowest bids opened Mar. 22 by Superv. Archt., Washington, D. C., for erecting U. S. Post Office at Everett: (a) limestone; (b) sandstone from State of Washington; (c) sandstone outside State of Washington; (d) granite: Olson & Johnson Co., Missoula, Mont. (a), $105,500; (b) $106,650; (c) $106,300; (d) $129,875. Sound Constr. & Eng Co., Seattle (a) $112,517; (b) $112,017; (c) $123,500; (d) $134,500 for Baring and $137,132 for Chelan. Hendrickson & Co., Seattle (a) $114,344; (b) $109,314; (c) $111,319; (d) $127,344. Erickson & Larson, Seattle (a) $115,138; (c) $114,886; Butler Contr. Co., Seattle (b) $110,200.

Seattle, Wash.—Following are 4 lowest bids opened Mar. 24 by Port Comn. for erecting fish storage building on East Waterway: Manhattan Contr. Co., $30,975; Harrington-Peters Co., $31,500; A. H. Davis, $32,497; A. S. Sumarlidson, $32,533.

Walla Walla, Wash.—Later reports state that bids will be opened by Co. Comrs. May 5 for erecting the court house. Probable cost $150,000. C. F. Dement, Co. Aud.

Pendleton, Ore.—Following are four lowest bids opened Mar. 26 by Superv. Archt., Washington, D. C., for erecting U. S. Post Office here: (a) limestone; (b) sandstone: Jas. S. Winters, Portland (a) $84,487; (b) $84,387; Olson & Johnson Co., Missoula, Mont. (a) $87,445; (b) $87,620; Welch Bros. & Hannaman, Grass Valley, Cal. (a) $92,219; (b) $92,219; Sound Constr. & Eng. Co., Seattle, Wash. (a) $92,362; (b) $92,368.

Portland, Ore. — Plans submitted to School Bd. for administration building which it is proposed erecting at the Franklin School, at a cost of $140,000.

Calipatria, Cal.—Citizens voted $40,000 bonds to erect an 8-grade grammar school.

El Centro, Cal.—Reported plans desired until Apr. 16 by Trus. School Dist. for a school to cost $30,000. Chas. Berkman, Clk. Bd.

Huntington Beach, Cal.—Plans being prepared by John C. Smith, Los Angeles, for a $40,000 grade school and a $70,000 high school.

★**Petaluma, Cal.**—Bd. Educ. awarded to Ward & Goodwin, San Francisco, contract for erecting high school costing $100,000.

San Bernardino, Cal.—Reported Co. Supervisors will ask competitive plans for the new hospital for which $150,000 bonds were recently voted.

★**San Francisco, Cal.**—Contract awarded by Bd. Pub. Wks. for pathological building at the San Francisco Hospital reported to C. L. Wold Co., 75 Sutter St., at $63,960.

Rudgear Merle Co. submitted the lowest bid to Bd. Pub. Wks. for the ornamental bronze and iron work on the new city hall at $101,000.

Ogden, Utah.—Erection of a joint city and county building costing $400,000 is reported under consideration by the city and county officials.

Park City, Utah.—Bids desired until May 13 by O. Wenderoth, Superv. Archt., Washington, D. C., for construction, complete (including mechanical equipment, interior lighting fixtures and approaches), of the U. S. Post Office at Park City.

Salt Lake City, Utah.—Bd. Educ. decided to erect a 2-unit building, each unit containing 13 rooms, at 13 E and 7 S Sts. The first unit will be erected at once at a cost of $82,000.

★**Windsor, Ont.**—Contract awarded Mar. 30 for erecting school at Marion and Niagara Sts., as follows: Mason, carpenter and lath plaster to Wetts & Gray, Windsor, at $38,900, and plumbing and heating to Jos. L. Henreink, Windsor, at $14,200. G. Jacques, Archt., Windsor.

PRIVATE BUILDINGS.

Items Arranged Geographically

Boston, Mass.—Plans prepared by G. Henri Desmond, 15 Beacon St., for a theater which John Craig, of the Castle Sq. Theater, and Mary Young will erect on Massachusetts Ave. at a cost of $500,000.

E. L. Snyder will erect a 7-story brick mercantile building on Albany St. to cost $75,000.

★**Greendale, Mass.**—Contract awarded to E. J. Cross Co., Worcester, for erecting 4-story brick and steel frame addition to storage building for Norton Co., to cost $25,000.

★**Danbury, Conn.**—Contract awarded to Robt. C. Read, of Danbury, for erecting the 2-story tile and brick Woodruff Bldg. on Main St. and for the steel work to Berlin Constr. Co., of Berlin, and roof to F. C. Benjamin.

Brooklyn, N. Y.—Competitive plans are being prepared for a moving picture theater to be erected at Robinson St. and Nostrand Ave., for Glynne & Ward, Halsey St, and Knickerbocker Ave.; cost $50,000.

Plans filed for following buildings: 4-story brick dairy at 3d Ave. and Dean St. for R. F. Stevens Milk Co., cost $80,000, A. Ulrich, Archt., 371 Fulton St.; 4-story brick tenement at E. 21st St. and Newkirk Ave. for Wolfinger & Lasberg, at a cost of $60,000, Rupp Bros., Archts., 189 Montague St.; 2-story brick theatre and store building at 5th Ave. and 43d St. for 190th St. Holding Co., cost $75,000, Thos. Lamb, Archt., 644 8th Ave., New York.

Canajoharie, N. Y.—The Methodists propose erecting on Little Mohawk and E. Main Sts. a $25,000 church.

New York, N. Y.—Plans being prepared by Louis Allen Abramson, 220 5th Ave., for a 4-story brick and fireproof building to be erected at 167th St. and Teller Ave., for Bronx Daughters of Jacob (Mrs. A. D. Dworsky, Pres.).

Podgur Realty Co., Southern Boule. and 163d St., intends erecting a 5-story apartment house at Bway. and 122d St.

Plans being prepared for following buildings: By Saml. Katz, 1 Madison Ave., for a 5-story apartment house, to be erected at Bway. and 218th St. for Robt. E. Simon, at a cost of $35,000; Jas. P. Whiskeman, 30 E. 42d St., for a 4-story brick garage, to be erected at Bway. and 176th St. for Thos. Smith, at a cost of $60,000; Wm. Koppe, 830 Westchester Ave., for a 5-story apartment house at Creston Ave. and Fordham Road, to cost about $55,000; Level Realty Corporation, 939 Intervale Ave., owners; Tremont Architectural Co., 401 E. Tremont Ave., for two 5-story apartment houses at Webster Ave. and 182d St., for McAvoy & Koester, 1902 Marmion Ave., cost $100,000; Saml. Katz, 1 Madison Ave., for two 5-story apartment houses, to be erected on Hoe Ave. and Aldus St., at a cost of $35,000 ea., for Turek Realty Co.

Plans filed for following buildings: 9-story brick and stone apartment house at 743 5th Ave., for Estate of Mary Mason Jones, cost $100,000; Hazard & Erskine, Archts., 437 5th Ave.; three 5-story brick tenements at Seaman Ave. and Emerson St., for Smada Realty Co., cost $165,000; Tremont Architectural Co., Archts., 401 Tremont Ave. 3-story fireproof office building at 217 E. 92d St. for Geo. Ehret, 1197 Park Ave., cost $50,000, Louis E. Dell, Archt., 1133 Bway.; four 5-story brick tenements at 151st St. and Concord Ave. for Freeman St. Co., cost $160,000, Neville & Bagge, Archts., 105 W. 40th St.; two 5-story brick tenements at 183d St. and Valentine Ave. for County Estates, Inc., cost $110,000, Moore & Landsiedel, Archts., 3d Ave. and 148th St.; three 5-story brick tenements at Bryant Ave. and 165th St. for Mack Constr Co., cost $105,000, Kreymborg Architectural Co., Archts., 1029 E. 163d St.; three 5-story brick tenements at University Ave. and Boscobel Pl., for Boyne Bridge Realty Co., 271 W. 125th St., cost $126,000, Neville & Bagge, Archts., 105 W. 40th St.

Plans completed by Gronenberg & Leuchtag, 303 5th Ave., for two 6-story apartment houses, to be erected at 150th St. and Amsterdam Ave., for Maple Constr. Co., cost about $110,000; by C. Steinmetz, 6 Church St., for 6-story brick apartment house at 169th St. and Ft. Washington Ave., for County Engineering Co., 6 Church St., cost $70,000.

Rochester, N. Y.—Reported bids desired by Foster & Gade, Sibley Bldg., for a 5-story and basement warehouse and office building, 90 x 121 ft., structural steel and brick to be erected on Canal St., by Brewster-Gordant Co., 47 N. Water St.; cost $130,000.

Atlantic City, N. J.—Bids desired about May 1 by Howard Edwards, of Atlantic City, Mgr. Strand Hotel, for erecting a brick, steel and stone addition to the hotel, to cost $220,000. Lloyd B. Titus, Archt, 421 Walnut St., Philadelphia.

West Hoboken, N. J.—Plans completed by Leo S. Feinen, 3697 Boulvd., Jersey City, for a 2-story brick and stone bank building to be erected at Summit Ave. and Paterson Plank Road for National Bank of North Hudson; cost $50,000.

Elizabethtown, Pa.—The sum of $30,000 has been given for erecting a building at the Elizabethtown Masonic Home grounds, and which is to be known as the Paul Lewis Memorial Bldg.

★**Philadelphia, Pa.**—Contract reported awarded to Harrison C. Rea, 1025 Wood St., for erecting a 1-story stone edifice for Union Baptist Church to cost $60,000. Chas. W. Bolton & Son, Archts., Witherspoon Bldg.

Contract awarded to Wm. Steel & Sons Co. for erecting a 6-story reinforced concrete brick warehouse at 919 Arch St. for Asam Bros.

★Contract for erecting 13-story apartment house at 1631 Walnut St., for Arthur W. Dayton and others, awarded to Cramp & Co., Philadelphia; cost about $750,000.

Primos, Pa.—Bids being received by Peuckert & Wunder, Engrs., 310 Chestnut St., Philadelphia, Pa., for a 2-story fireproof reinforced concrete, brick, terra cotta and stone laboratory, 43 x 124 ft. to be erected at Primos for the Primos Chemical Co.

★**South Fork, Pa.**—Contract for erecting United Evangelical Church awarded to Geo. Schenck & Co., of Butler, at $28,238.

★**Wilkinsburg, Pa.**—Contract awarded to Cranford Constr. Co., Cincinnati, O., for simplex concrete piles for the Pennsylvania R. R. station and platforms.

Morgantown, W. Va.—Plans being prepared by John H. Harmon, Uniontown, Pa., for a Masonic Temple.

Columbia, S. C.—Richland Lodge No. 39, F. A. M. intends erecting a 6-story Masonic Temple costing $100,000.

★**Lexington, Ky.**—Contract awarded to T. S. Moundy & Co., of Chattanooga, Tenn., for erecting the freight terminal here for the Louisville & Nashville R. R. and which is to cost $100,000.

Akron, O.—Elks considering erecting $100,000 lodge building.

★**Toledo, O.**—Contract for erecting First Reformed Church awarded to Gettins & Kopittke Co., Toledo, at $43,000.

Chicago, Ill.—Albert E. Cook, Kankakee, Ill., reported to have secured a site at Bway. and Leland Ave. on which he intends erecting a 5-story department store costing $150,000.

Reported Bd. Trade Bldg. Com. is considering erecting an 8-story building on site of present structure, Jackson Boule. and La Salle St., to cost $2,000,000.

Milwaukee, Wis.—A permit has been issued for a 7-story concrete warehouse to be erected at 31 to 39 Water St. for the John Pritzlaff Hardware Co.

Competitive plans are being received by Moritz Arnit Aurora Fraternal Assoc. of Odd Fellows, for a 3-story lodge and store building to be erected on 3d St., at a cost of $40,000.

Bids reported desired until Apr. 20 by L. M. Gurda, Archt., 478 Mitchell St., for erecting a 2-story and basement, 100 x 100 ft., lodge and business flat building for Anton Piskula. Probable cost $25,000.

Sioux City, Ia.—Plans to be prepared by Buettler & Arnold, Davison Auto Blk., for a 2-story brick apartment house, which A. F. Nash will erect at 13th and Pearl Sts. at a cost of $30,000.

Concordia, Kan.—Barrett & Honeywell, of Kokomo, Ind., selected to prepare plans for the Presbyterian Church and parsonage, which are to be of brick, the church to cost about $30,000. Wm. M. Peck, Chmn. Bldg. Com.

Omaha, Neb.—Bd. Trade taking steps to replace burned building with a fireproof structure 9 to 14 stories high. Cost $500,000.

Kansas City, Mo.—Plans of Wilder & Wright, First Natl. Bank Bldg., accepted for the Geo. H. Nettleton Home Assoc. building, to be fireproof, reinforced concrete and brick, and contain between 50 and 60 rooms. E. F. Swinney, Chmn. Bldg. Com.

San Antonio, Tex.—Bd. Directors of the Rescue Home reported to be considering the erection of a new building costing $100,000.

Albuquerque, N. M.—Reported bids about to be asked by Bd. Directors of the Y. M. C. A. for erecting the building of tile construction, and costing $65,000.

★**Seattle, Wash.**—Contract awarded to Martin & Dougan, Northern Bank Bldg., for erecting the 3-story brick apartment house at 16th Ave. and Denney Way to cost $50,000. V. W. Voorhees, Eitel Bldg., Archt.

Portland, Ore.—See "Railroads."

NEW INDUSTRIAL PLANTS.

See also "Private Buildings."

Items Arranged Geographically

Newport, R. I.—Lowest bid received for erecting the machine and assemble shop and storehouse at the U. S. Naval Torpedo Station submitted by Walter L. Mellen, Worcester, Mass., at $28,013.

Meriden, Conn.—Reported Pan American Reduction Co., recently incorporated in New York State, has secured a site here and will erect a plant here for manufacture of manganese steel.

★**Ilion, N. Y.**—Contract awarded to Jas. Stewart & Co., 30 Church St., New York, by Remington Arms Co. for erecting 4 factory buildings, each 4 stories high, steel, brick and concrete, to cost $600,000.

★**Utica, N. Y.**—Contract for erecting 3-story brick, 400 x 54 ft., addition to the plant of the Savage Arms Co. awarded to Griffith & Pierce, 72 Charlotte St.

Cambridge, Md.—It is reported that a furniture factory costing $50,000 is contemplated here. Address Bd. Trade.

★**Albemarle, N. C.**—Contract for erecting 3-story additional mill for Wiscassett Mills Co. reported awarded to Holdbrook & Bradshaw, Salisbury, N. C. Cost about $100,000.

★**La Grange, Ga.**—Reported contract for erecting cotton mill for Hillside Cotton Mills awarded to T. C. Thompson & Bro., Charlotte, N. C. Cost $500,000.

★**Macon, Ga.**—Contract for erecting a fireproof cold storage plant for Armour Packing Co. awarded to T. S. Moudy & Co., of Chattanooga, Tenn. Cost, $50,000.

Andrews, Fla.—Cherokee Chemical Co., of Andrews, has been incorporated with a capital of $125,000 and will erect a plant to grind, mix and prepare various specialties.

Birmingham, Ala. — Southern Sewer Pipe Co. reported to be planning rebuilding the plant recently destroyed by fire.

Woodward, Ala.—Woodward Iron Co. reported to be planning erecting a benzol factory costing about $150,000, main building to be 100x300 ft.

★**Cleveland, O.**—Contract for Simplex Concrete Piles for factory at 3d and Lakeside Ave. awarded to Cranford Constr. Co., Gerke Bldg., Cincinnati.

Ravenna, O.—Plans reported prepared by Geo. S. Rider & Co., Cleveland, for 2 additions to the Cleveland Worsted Co.'s plant in Ravenna, to include a 2-story, 164 x 119 ft., steel frame and brick storage building, having metal window frames, and dyehouse, 175 x 75 ft., steel frame and brick. Two fireproof stairways and one electric elevator are included in equipment.

★**Youngstown, O.**—Contract awarded by Republic Iron & Steel Co. to H. Koppers Co., Pittsburgh, Pa., for erecting 92 additional by-product coke ovens at Lansingville to cost approximately $1,000,000.

Chicago, Ill.—E. J. Lumenschloss, Mgr. Eng. Dept., British-American Co., Room 1003, City Hall Sq. Bldg., Chicago, writes that this company is at the present time preparing plans and specifications for a shipbuilding plants to be located on the Atlantic Coast to cost $5,000,000.

National Biscuit Co., 10th Ave. and 15th St., New York, N. Y., reported intends erecting on Polk St. and Campbell Ave. a fireproof warehouse costing $250,000.

Manitowoc, Wis.—American Seating Co. is reported taking steps to erect an addition to their plant.

Minneapolis, Minn.—Permit issued to Minneapolis Fibre Bottle Co. to erect a 2 story brick factory at 65 22d Ave. N. E., to cost $30,000.

★*Items marked thus give the names of parties awarded contracts.*

★**Seattle, Wash.**—Contract awarded to Butler Constr. Co., Central Bldg., and American Bridge Co. for constructing the addition to steel mill of Pacific Coast Steel Co., which is to cost $50,000.

Toronto, Ont.—The Butterick Publishing Co., Spring and Macdougal Sts., New York, is reported to have secured a site here on Wheelington St. and Spadina Ave. on which to erect a warehouse and factory costing $100,000.

MISCELLANEOUS.

See also "Hydraulic Construction and River Improvements."

Items Arranged Geographically

Swimming Pool—Holyoke, Mass.—Bids reported desired until Apr. 15 by city, care of Wm. B. Reid, Archt., 280 High St., for constructing a swimming pool, 20 x 60 ft.

Wood Guard Railing—Connecticut.—Bids desired until Apr. 19 by Chas. J. Bennett, State Highway Comr., Hartford, for constructing Standard wood guard railing as follows:

Middletown, 1100 lin. ft. Hartford-Saybrook Turnpike.
Haddam, 1122 lin. ft. Hartford-Saybrook Turnpike.
New Britain, 926 lin. ft. Stanley St.
Bristol, 500 lin. ft. Park St.
Bolton, 4000 lin. ft. Andover Road.
Southbury, 1200 lin. ft. Woodbury-Newtown Road.
Danbury, 2232 lin. ft. Sugar Hollow Road.

Fence, Etc.—New York, N. Y.—Bids desired until Apr. 16 by Bd. Trus. (Chas. E. Lydecker, Chmn.) for R. V. Davis, Curator, College City of New York, for furnishing material and constructing a fence for athletic field of stadium, for College City of New York, 136th St. and Convent Ave.; also furnishing material and constructing sidewalk and curb for said athletic field.

Electric Light Plant—Perth Amboy, N. J.—Bids desired Apr. 26 by Bd. Aldermen, for municipal light plant, advertised in Engineering Record. Wilbur LaRoe, City Clk. Runyon & Carey, Consulting Engrs., 845 Broad St., Newark.

Retaining Wall, etc.—Wilkes-Barre, Pa.—Bids desired until Apr. 16 at office of City Clerk, for furnishing material and constructing a stone retaining wall on the easterly side of Park Ave., from Metcalf to Dana Sts. and concrete steps through the park from Park Ave. to Hancock St.

Park Improvements—Hagerstown, Md.—Citizens voted Mar. 22 to issue $65,000 bonds for park improvements.

Bathing Beaches, Etc.—Chicago, Ill.—Citizens voted Apr. 6 to issue $600,000 bonds for bathing beaches and playgrounds.

Steel Trestle, Etc.—Chicago, Ill.—Bids desired until Apr. 12 by Harbor and Subway Comn. (F. C. Shankland, Chmn.) for constructing steel trestle and loading platform, Pier No. 2, Harbor Dist. No. 1.

Cement—St. Paul, Minn.—Bids reported desired until Apr. 12 by Aug. Hohenstein, Purchasing Agent, for 2075 bbls. Portland cement.

Roseland, Neb.—Reported contracts will soon be let by Roseland Grain & Supply Co. to erect a grain elevator having a capacity of 20,000 bu.

Subway—Toronto, Ont. The Dominion Ry. Board Mar. 30, granted application of city of Toronto, for approval of its plans for construction of a subway under the Grand Trunk tracks, at proposed extension of Wilton Ave. to connect with Dickens St. The Grand Trunk will pay $10,000 toward cost, the city with the exception of a grant of $5,000 from the Government Crossing fund, will pay the balance.

Creosoted Piles—Panama—Bids desired at the office Maj. F. C. Boggs, Corps Engs., U. S. A. Genl. Purchasing Officer, Panama Canal, Washington, D. C., until 2.30 p. m. and at the office of the Assistant Purchasing Agent, 1086 N. Point St., San Francisco, until 11.30 a. m., Apr. 12, for Con. 914—Furnishing creosoted piles.

Galvanized Steel, Tool Steel, Etc.—Panama.—Bids desired until Apr. 27 by Maj. F. C. Boggs, Corps Engrs., U. S. A., General Purchasing Officer, Panama Canal, Washington, D. C., for furnishing, according to Circular 915, galvanized steel, tool steel, stay bolt iron, drill rods steel boiler tubes, wire cable, steel wire, etc.

Proposals

For Proposals Advertised see Pages 46 and 47.

WATERWORKS.

Bids Close.		See Eng. Record.
Apr. 13.	Valves, Toronto, Ont. Adv. Feb. 20 to Mar. 6.	Feb. 20
Apr. 13.	Laying Pipe, Laramie, Wyo.	Mar. 27
Apr. 13.	Pipe Line, Ogden, Utah.	Apr. 3
Apr. 13.	Pipe, Toronto, Ont.	Apr. 3
Apr. 13.	Water Wks. System, Manning, S. C.	Apr. 10
Apr. 14.	Water Wks., Barker, N. Y. Adv. Mar. 27.	Mar. 27
Apr. 14.	Mains, New York, N. Y.	Apr. 10
Apr. 14.	Conduit, Chicago, Ill.	Apr. 10
Apr. 15.	Wells, Winona, Minn. Adv. Mar. 13.	Mar. 13
Apr. 15.	System, East New Market, Md. Adv. Mar. 27.	Mar. 27
Apr. 15.	Water Works, Morning Sun. Ia.	Mar. 27
Apr. 15.	System, Edina, Mo.	Apr. 3
Apr. 15.	Tank, Albany, Minn.	Apr. 10
Apr. 15.	Meters, Portland, Ore.	Apr. 3
Apr. 15.	Pipe, Stronghurst, Ill.	Apr. 10
Apr. 16.	Water Wks., Vivian, La.	Apr. 3
Apr. 16.	Filter, Pump, Etc., Chillicothe, Mo.	Apr. 3
Apr. 16.	Operating Tables at Filtration Plant, Cleveland, Ohio	Apr. 10
Apr. 16.	Pipe, etc., Panama.	Apr. 10
Apr. 16.	Service Pipes, Chicago, Ill.	Apr. 10
Apr. 18.	Pipe, Etc., Panama.	Apr. 3
Apr. 19.	Water Works Material, Jefferson, Ga.	Mar. 20
Apr. 19.	Mains, Cleveland Heights, O.	Mar. 27
Apr. 19.	Tunnel Work, Milwaukee, Wis. Adv. Apr. 3, 10.	Apr. 3
Apr. 19.	System, Kirkland, Wash.	Apr. 3
Apr. 19.	System, Peoria Heights, Ill.	Apr. 3
Apr. 19.	Pump, Odessa, Wash.	Apr. 10
Apr. 19.	Pumping Equipment, Virginia, Minn.	Apr. 10
Apr. 20.	Water Wks., Fordyce, Neb.	Apr. 3
Apr. 20.	C.-I. Pipe, Sacramento, Cal. Adv. Mar. 27, Apr. 3.	Mar. 27
Apr. 20.	Reservoir, Fostoria, O.	Apr. 10
Apr. 21.	Pump. Sta. Equip., Durham, N. C. Adv. Mar. 27 to Apr. 10.	Mar. 27
Apr. 21.	Water Wks. Improv., Durham, N. C. Adv. Mar. 27 to Apr. 10.	Mar. 27
Apr. 21.	Mains, Lemmon, S. D.	Apr. 10
May 1.	Improvements, Laurel, Md. Adv. Apr. 10.	Apr. 10
May 1.	System, for Cemetery, Crow Agency, Mont.	Apr. 10
May 5.	Centrifugal Pump, Kansas City, Mo. Adv. Mar. 20 to Apr. 10.	Mar. 20
May 15.	Pumping Station, Binghamton, N. Y. Adv. Apr. 3, 10.	Apr. 3

SEWERAGE AND SEWAGE DISPOSAL.

Bids Close.		See Eng. Record.
Apr. 13.	St. Cloud, Minn.	Apr. 3
Apr. 13.	Toronto, Ont.	Apr. 3
Apr. 13.	Manning, S. C.	Apr. 10
Apr. 14.	Baltimore, Md. Adv. Mar. 27.	Mar. 27
Apr. 14.	Georgetown, S. C.	Apr. 10
Apr. 14.	Rochester, N. Y.	Apr. 10
Apr. 14.	Cincinnati, O.	Apr. 10
Apr. 14.	Long Island City, N. Y.	Apr. 10
Apr. 15.	State Center, Ia.	Mar. 27
Apr. 15.	Cleveland, O.	Apr. 10
Apr. 16.	Janesville, Wis.	Mar. 27
Apr 16.	Chicago, Ill.	Apr. 10
Apr. 17.	Annville, Pa. Adv. Mar. 27 to Apr. 10.	Mar. 27
Apr. 19.	Jefferson, Ga.	Mar. 20
Apr. 19.	New Orleans, La.	Mar. 6
Apr. 19.	San Antonio, Tex.	Mar. 27
Apr. 19.	Cleveland Heights, O.	Mar. 27
Apr. 19.	Greenville, Pa. Adv. Apr. 3.	Apr. 3
Apr. 20.	Columbus, O.	Apr. 10
Apr. 20.	Gloversville, N. Y.	Apr. 10
Apr. 21.	Washington, D. C. Adv. Apr. 10.	Apr. 10
Apr. 23.	Kenosha, Wis.	Apr. 10
Apr. 24.	Little Rock, Ark.	Apr. 3
Apr. 26.	Lewiston, Idaho	Apr. 10
Apr. 27.	Macon, Ga.	Apr. 10
Apr. 28.	Clinton, S. C.	Apr. 3
Apr. 30.	Billings, Mont.	Apr. 10
May 1.	Laurel, Md. Adv. Apr. 10.	Apr. 10

BRIDGES.

Bids Close.		See Eng. Record.
Apr. 13.	Bryan, O.	Mar. 27
Apr. 13.	Easton, Md. Adv. Apr. 3.	Apr. 3
Apr. 13.	Zachary, La.	Apr. 3
Apr. 13.	Reading, Pa.	Apr. 10
Apr. 13.	Franklin, Pa.	Apr. 10
Apr. 13.	Baton Rogue, La.	Apr. 10
Apr. 14.	Cleveland, O.	Mar. 27
Apr. 14.	Canton, O.	Apr. 3
Apr. 14.	Whiting, Kan.	Apr. 10
Apr. 14.	Illinois	Apr. 10
Apr. 15.	Tavares, Fla.	Mar. 13
Apr. 15.	Windom, Minn.	Apr. 3
Apr. 15.	New York, N. Y.	Apr. 10
Apr. 16.	Cleveland, O.	Apr. 10
Apr. 16.	Elmira, N. Y.	Apr. 10
Apr. 17.	Hamilton, O.	Mar. 27
Apr. 17.	Illinois	Apr. 10
Apr. 17.	Illinois	Apr. 10
Apr. 17.	Cleveland, O.	Apr. 10
Apr. 19.	Danville, Ind.	Apr. 3
Apr. 19.	Olympia, Wash.	Apr. 10
Apr. 20.	Illinois	Apr. 10
Apr. 21.	Goshen, Ala.	Apr. 3
Apr. 21.	Crookston, Minn.	Apr. 10
Apr. 22.	Illinois	Apr. 10
Apr. 24.	Tiffin, O.	Apr. 10
Apr. 26.	Circleville, O.	Apr. 3
Apr. 27.	Leitchfield, Ky.	Mar. 27
May 1.	Columbus, O.	Apr. 10
May 4.	Sea Isle City, N. J. Adv. Apr. 10.	Apr. 10

PAVING AND ROADS.

Bids Close.		See Eng. Record.
Apr. 12.	Montclair, N. J. Adv. Mar. 27, Apr. 3.	Mar. 27
Apr. 12.	Road Oil, Montclair, N. J. Adv. Mar. 27, Apr. 3.	Mar. 27
Apr. 13.	Easton, Md.	Apr. 3
Apr. 13.	Ogden, Utah	Apr. 3
Apr. 13.	New York, N. Y.	Apr. 3
Apr. 13.	Hamilton, Ala.	Apr. 3
Apr. 13.	Hartford, Conn. Adv. Apr. 3.	Apr. 3
Apr. 13.	Maryland	Apr. 3
Apr. 13.	Bakersfield, Cal.	Apr. 10
Apr. 13.	Road Roller, Trenton, N. J.	Apr. 10
Apr. 13.	Massachusetts	Apr. 10
Apr. 13.	Cambridge, Md.	Apr. 10
Apr. 13.	Kansas City, Mo.	Apr. 10
Apr. 13.	River Rouge, Mich.	Apr. 10
Apr. 14.	Albany, N. Y. Adv. Mar. 27 to Apr. 10.	Mar. 27
Apr. 14.	Dover, O.	Apr. 3
Apr. 14.	New Philadelphia, O.	Apr. 3
Apr. 14.	Toledo, O.	Apr. 3
Apr. 14.	Eau Claire, Wis.	Apr. 10
Apr. 14.	Brooklyn, N. Y.	Apr. 10
Apr. 14.	Canton, O.	Apr. 10
Apr. 14.	Greensboro, N. C.	Apr. 10
Apr. 15.	Tavares, Fla.	Mar. 13
Apr. 15.	Coshocton, O.	Apr. 3
Apr. 15.	Brooklyn, N Y.	Apr. 10
Apr. 16.	Nova, O.	Apr. 3
Apr. 16.	Walker, Minn.	Apr. 3
Apr. 16.	New York, N. Y.	Apr. 10
Apr. 17.	South Dartmouth, Mass.	Apr. 10
Apr. 17.	Cleveland, O.	Apr. 10
Apr. 17.	Greenwich, Conn. Adv. April 10	Apr. 10
Apr. 19.	Alabama	Mar. 13
Apr. 19.	Sanford, Fla.	Apr. 3
Apr. 19.	Oil Distributor, Etc., Minneapolis, Minn.	Apr. 3
Apr. 19.	Montesano, Wash.	Apr. 3
Apr. 19.	Camden, N. J.	Apr. 10
Apr. 19.	Gary, Ind.	Apr. 10
Apr. 19.	Akron, O.	Apr. 10
Apr. 19.	Yankton, S. D.	Apr. 10
Apr. 19.	Montesano, Wash.	Apr. 10
Apr. 19.	Irondequoit, N. Y.	Apr. 10
Apr. 19.	Connecticut.	Apr. 10
Apr. 20.	Albany, N. Y. Adv. Apr. 3, 10.	Apr. 3
Apr. 20.	Redmond, Wash.	Apr. 3
Apr. 20.	Greenwich, Conn. Adv. Apr. 10.	Apr. 10
Apr. 20.	Lancaster, S. C.	Apr. 10
Apr. 20.	Trenton, N. J.	Apr. 10
Apr. 20.	Seattle, Wash.	Apr. 10
Apr. 20.	Columbus, O.	Apr. 10
Apr. 20.	Jersey City, N. J.	Apr. 10
Apr. 20.	Gloversville, N. Y. Adv. Apr. 10.	Apr. 10
Apr. 22.	Newark, N. J.	Apr. 10
Apr. 22.	Port Jervis, N. Y. Adv. Apr. 10.	Apr. 10
Apr. 23.	Cincinnati, O.	Apr. 3
Apr. 23.	Prairie du Chien, Wis.	Apr. 3
Apr. 24.	La Crosse, Wis.	Apr. 3
Apr. 24.	Abbeville, La.	Apr. 10
Apr. 26.	Marble Cliff, O.	Apr. 3
Apr. 26.	Akron, O.	Apr. 10
Apr. 26.	Port Clinton, O.	Apr. 10
Apr. 26.	Seattle, Wash.	Apr. 10
Apr. 26.	California	Apr. 10
Apr. 26.	Franklin, Pa.	Apr. 10
Apr. 26.	Albany, N. Y. Adv. Apr. 10.	Apr. 10
Apr. 26.	Chesterfield, N. J.	Apr. 10
Apr. 27.	Oak Harbor, O.	Apr. 10
Apr. 27.	Seattle, Wash.	Apr. 10
Apr. 28.	Cleveland, O.	Apr. 10
Apr. 29.	Nashville, Tenn.	Apr. 3
Apr. 30.	Coldwater, Mich.	Apr. 3
Apr. 30.	Cincinnati, O.	Apr. 10
May 1.	Kingston Station, Wilkes-Barre, Pa.	Mar. 27
May 4.	Plymouth, Wis.	Apr. 10
May 7.	Toledo, O.	Apr. 10
May 15.	Newton, Kan.	Apr. 10

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Bids Close.		See Eng. Record.
Apr. 14.	Timber Crib, etc., Buffalo, N. Y.	Apr. 3
Apr. 14.	Channel Construction, Waterbury, Conn.	Apr. 10
Apr. 14.	Drainage Work, Osceola, Ark.	Apr. 10
Apr. 15.	Dredging, Buffalo, N. Y. Adv. Mar. 20 to Apr. 10.	Mar. 20
Apr. 15.	Dredge, Lynn Haven, Fla.	Apr. 3
Apr. 15.	Dredging, Falmouth, Mass.	Apr. 10
Apr. 20.	Dredging, Hartford City, Ind.	Mar. 27
Apr. 20.	River Improvement, Tiffin, O. Adv. Apr. 3, 10.	Mar. 27
Apr. 20.	Seawall, Seattle, Wash.	Apr. 3
Apr. 23.	Flood Protection Work, Indianapolis, Ind.	Mar. 20
Apr. 24.	Dredging, Winter Haven, Fla.	Apr. 10
Apr. 26.	Valves, Etc., for Locks, Panama Adv. Apr. 3.	Apr. 3
Apr. 26.	Reconstructing Dam, Maietta, O.	Apr. 3
Apr. 26.	Drainage, St. Louis, Mo.	Apr. 10
Apr. 27.	Steel Locks for Dam No. 29, Cincinnati, O. Adv. Apr. 10.	Apr. 10
Apr. 27.	Levee Work, Augusta, Ga.	Apr. 10
Apr. 29.	Ditch, Bucyrus, O.	Apr. 10
Apr. 30.	Irrigation Work, Browning, Mont.	Apr. 10
May 1.	Drainage, New Bern, N. C.	Apr. 10
May 3.	Dredging, New Orleans, La. Adv. Apr. 3, 10.	Apr. 3
May 10.	Revetment and Dike, Kansas City, Mo. (Two prop.) adv. Apr. 10.	Apr. 10
May 12.	Irrigation, Saco, Mont. Adv. Apr. 10.	Apr. 10

PUBLIC BUILDINGS AND SCHOOLS.

Bids Close.		See Eng. Record.
Apr. 12.	Bath, N. Y. Adv. Mar. 27 to Apr. 10.	Mar. 27
Apr. 13.	Morrall, O.	Mar. 20
Apr. 13.	Industry, N. Y. Adv. Mar. 20 and 27.	Mar. 20
Apr. 13.	Minneapolis, Minn.	Apr. 10
Apr. 13.	Pittsburgh, Pa.	Apr. 10
Apr. 14.	Lowell, O.	Mar. 27
Apr. 14.	Dayton, O.	Mar. 27
Apr. 14.	Greystone Park, N. J.	Apr. 3
Apr. 14.	Ridgeland, S. C.	Apr. 10
Apr. 14.	Salem, Mass.	Apr. 10
Apr. 15.	Chillicothe, O.	Mar. 27
Apr. 15.	Lakewood, O.	Mar. 27
Apr. 15.	Omaha, Neb.	Mar. 27
Apr. 15.	Lawrence, Neb.	Apr. 3
Apr. 15.	Conyers, Ga.	Apr. 3
Apr. 15.	Washington, D. C.	Apr. 10
Apr. 15.	Crafton, Pa.	Apr. 10
Apr. 15.	Darlington, S. C.	Apr. 10
Apr. 15.	Troy, N. Y.	Apr. 10
Apr. 15.	Wilton Junction, Ia.	Apr. 10
Apr. 16.	Virden, Ill.	Apr. 10
Apr. 16.	El Centro, Cal.	Apr. 10
Apr. 16.	Ravenna, O.	Apr. 10
Apr. 17.	Indian Head, Md.	Apr. 3
Apr. 17.	Radio, Va.	Apr. 10
Apr. 19.	Jacksonville, Fla.	Mar. 27
Apr. 19.	Corpus Christi, Tex.	Mar. 20
Apr. 19.	Toledo, O.	Mar. 27
Apr. 19.	Newark, N. J.	Apr. 3
Apr. 19.	Wilmington, N. C.	Apr. 3
Apr. 19.	Maynard, Mass.	Apr. 10
Apr. 20.	Douglas, Wyo.	Mar. 27
Apr. 20.	Alliance, O.	Mar. 27
Apr. 20.	Portland, Me.	Mar. 20
Apr. 20.	Gloucester, N. J. Adv. Mar. 27, Apr. 3.	Mar. 27
Apr. 20.	Waterloo, Ia.	Apr. 3
Apr. 20.	Nashville, Tenn.	Apr. 10
Apr. 20.	Lawrence, Mass.	Apr. 10
Apr. 20.	Newark, N. J.	Apr. 10
Apr. 22.	Vandalia, O.	Apr. 3
Apr. 22.	McKeesport, Pa.	Apr. 3
Apr. 22.	New York, N. Y.	Apr. 3
Apr. 22.	Knoxville, Tenn.	Apr. 10
Apr. 23.	Toledo, O.	Mar. 20
Apr. 24.	Troy, O.	Apr. 3
Apr. 26.	New York, N. Y. Adv. Apr. 3, 10.	Apr. 3
Apr. 26.	Lancaster, O.	Apr. 3
Apr. 26.	Youngstown, O.	Apr. 10
Apr. 27.	Grand Forks, N. D.	Apr. 3
Apr. 27.	Newark, N. J.	Apr. 10
Apr. 28.	Ardmore, Okla.	Mar. 27
Apr. 29.	Trenton, N. J.	Apr. 10
Apr. 30.	Ft. Bliss, Tex. Adv. Adv. Apr. 3, 10.	Apr. 3
Apr. 30.	Youngstown, O.	Apr. 10
Apr. 30.	Oberlin, O.	Apr. 10
May 1.	Apalachicola, Fla.	Apr. 10
May 4.	Rushville, Ill.	Apr. 10
May 5.	Walla Walla, Wash.	Apr. 10
May 6.	Aberdeen, S. D.	Apr. 10
May 8.	New Albany, Ind.	Apr. 10
May 12.	Bryan, Tex.	Apr. 10
May 13.	Park City, Utah	Apr. 10
May 14.	New Haven, Conn.	Apr. 10
May 17.	Concord, N. H. Adv. Apr. 10.	Apr. 10
June 1.	Harrisburg, Pa.	Mar. 13

PRIVATE BUILDINGS.

Bids Close.		See Eng. Record.
Apr. 14.	Blair, Wis.	Apr. 3
Apr. 15.	Strum, Wis.	Apr. 3
Apr. 15.	Milwaukee, Wis.	Apr. 3
Apr. 19.	Louisville, Ky.	Apr. 3
Apr. 20.	Milwaukee, Wis.	Apr. 10
Apr. 22.	Clinton, Ind.	Apr. 3

MISCELLANEOUS.

Bids Close.		See Eng. Record.
Apr. 13.	Stone, New Orleans, La.	Mar. 20.
Apr. 13.	Laundry Bldg. Equipment, Sonyea, N. Y. Adv. Apr. 3, 10.	Apr. 3
Apr. 15.	Swimming Pool, Holyoke, Mass.	Apr. 10
Apr. 16.	Retaining Wall, Wilkes-barre, Pa.	Apr. 10
Apr. 16.	Fence, etc., New York, N. Y.	Apr. 10
Apr. 17.	Elevators Newport, R. I.	Apr. 3
Apr. 19.	Cement for Dam Work, Louisville, Ky. Adv. Mar. 27 to Apr. 10.	Mar. 27
Apr. 19.	Wood Guard Rail, Connecticut.	Apr. 10
Apr. 20.	El. Ry., Sect. 2, Route 12, Brooklyn, N. Y. Adv. Mar. 27, Apr. 3.	Mar. 27
Apr. 20.	Electric Light Plant, Pratt, Kan. Adv. Apr. 3.	Apr. 3
Apr. 20.	Iron Castings, Brick, Cement, Etc., Charleston, S. C.	Apr. 3
Apr. 20.	Hoist, Bremerton, Wash.	Apr. 3
Apr. 20.	Cable, Washington, D. C.	Apr. 3
Apr. 26.	Electric Light Plant, Perth Amboy, N. J. Adv. Apr. 10.	Apr. 10
Apr. 27.	Steel Stray Bolt Iron, etc., Panama	Apr. 10
Apr. 29.	Boat, Wheeling, W. Va. Adv. Apr. 3, 10.	Apr. 3

★*Items marked thus give the names of parties awarded contracts.*

New Construction Activities

The New York Stock Exchange has held the center of the financial stage this week with strong indications of heavy buying on the part of the public for the first time in months. On April 9 more than a million and a quarter shares changed hands; April 10 came near setting a Saturday record for the volume of business done, and April 13 was another million-share day. Such days have been rare, especially in recent years. The last one was the panic day of July 31 last. This trading has been marked by a steady and sustained improvement of the leading securities.

It is encouraging to note that steel prices are holding firm, and a second-half advance is reported, in the face of the great falling off of domestic orders and the present lack of demand for steel for railroad and general construction. Export orders have increased to nearly half of the business being booked, and still current orders show a steady decline from the volume of the first quarter. It is evident that either domestic business is expected to improve, or that there is reason to believe export business will reach unusual proportions, since otherwise there would be nothing on which to base the present expectation of a further advance in prices.

Buildings

A contract for a sixteen-story loft building has been awarded in New York City. At Newark, N. J., a contract for erecting a $300,000 theater has been let. Among the contracts for school buildings noted are one awarded at Fostoria, Ohio, for $138,000, and another let at Duluth, Minn., at $118,000. Bids are desired on a $250,000 school at Lawrence, Mass., and on a $125,000 building at Seattle. It is reported that high school buildings to be erected in Cincinnati will cost $750,000. Plans are being prepared for a $550,000 reinforced-concrete factory at Brooklyn. A building for the Loomis Institute to cost $300,000 will be erected at Windsor, Conn. It is reported that benzol plants to be erected at Fairfield and Woodward, Ala., will cost $400,000 and $300,000 respectively.

Bridges and Roads

Nine bridges costing from $18,000 to $80,000 each have been authorized by ordinance at Philadelphia. Bids are desired on two small steel bridges near Moorehead, Minn., and bids on constructing earth approaches to the Interstate Bridge at Portland, Ore., are desired. Contracts totaling $48,000 have been awarded by the State of Connecticut on bids opened March 22. The President of Queensboro, New York City, has opened bids on $77,000 worth of paving. Paving work to cost $130,000 has been contracted for at Cumberland, Md. On the Pacific Coast, Vancouver, B. C., has awarded contract for $175,000 worth of paving, and Los Angeles has contracted for work which cost $152,000. Low bids opened April 5 on California State highway work totaled more than $181,000, and two contracts already awarded totaled $73,000. It is reported that the Boston Transit Commission is about to let contracts for paving work which will cost $100,000. Bids are desired on road work by the three Kansas towns of Newton, Neodosha and Salina. Press reports state that Montreal, Quebec, will spend $1,300,000 for paving streets this year and $800,000 for macadamizing. Bids are desired on paving work at Knoxville, Tenn. San Bernardino, Cal., will open bids on April 20 on nearly 8 miles of concrete roads and on other road work. No fewer than six sales of road bond issues exceeding $75,000 have been reported. One of these issues, amounting to $500,000, has been sold at Yuma, Ariz., while Vernon, Ala., has sold bonds totaling $150,000, and Akron, Ohio, and Alexandria, La., have sold $100,000 issues each. Bradentown, Fla., has voted a $250,000 road bond issue, and Bristol, Tenn., a $100,000 issue.

Waterworks and Sewers

The city of Hartford, Conn., is actively preparing for construction on its new water supply, and the Governor of Connecticut has signed a bill authorizing the city to assume a debt of $2,000,000 for this purpose. The San Francisco Board of Supervisors has appropriated $182,000 for carrying out a construction program at Hetch Hetchy. It is reported that the Cedar River basin of the Seattle water supply will require strengthening by a $1,500,000 wing dam, as recommended by the Seattle city engineer. A $117,000 sewer contract has been awarded at Rochester, N. Y. Port Chester, N. Y., has awarded three contracts totaling $109,000. Low bid on sewer work in Brooklyn, N. Y., opened April 9, was $274,000. An $85,000 sewer contract has been awarded at Maywood, Ill. Bids on $88,000 worth of sewer construction have been opened at Butte, Mont. Bids are desired on further sewer work at Philadelphia. Press reports state that Portland, Ore., will spend $240,000 for sewerage work, and the construction program of Montreal, Que., is said to include $900,000 for sewer construction. The Mayor of Boston, Mass., has signed the City Council order providing for the issue of $1,000,000 in bonds for sewerage work.

Miscellaneous

A railroad contract amounting to $5,000,000 is reported from Grants Pass, Ore. Bids opened April 9 by the Public Service Commission for a New York subway section ranged from $1,937,000 to $2,594,000. The New York Public Service Commission for the First District has ordered public hearings for April 23 on forms of contract for the five underground sections of the Fourteenth Street-Eastern Rapid Transit Railroad. Bids will be opened April 26 for flood protection work at Indianapolis, Ind., which will cost $618,000. It is reported that the Great Northern Railroad will construct concrete snowsheds costing $250,000, near Tye, Wash. The U. S. Engineer Office at Detroit, Mich., will receive April 8 bids for the construction of the fourth lock at Sault Ste. Marie, Mich. Bids are desired April 27 on further levee work at Augusta, Ga. It is reported from Ontario that the Dominion Government has appropriated $850,000 for harbor and river improvements. Kalamazoo, Mich., has voted a $975,000 bond issue for the construction of a gas plant.

WATERWORKS.

Items Arranged Geographically

★**Boston, Mass.**—Contract awarded to M. De Sisto, Everett, for laying 30-in. water pipe in Harrison Ave., Perry, Washington and Worcester Sts., South End, at $9,397.

★**Middleboro, Mass.**—Contract awarded Apr. 6 for a 500,000-gal. concrete tank, supported on concrete tower, about 110 ft. from ground to bottom of tank, from plans of G. A. Sampson, 14 Beacon St., Boston, to Hennebigne Constr. Co., New York, at $23,140. Next 3 lowest bids: Hein Chimney Co., Chicago, Ill., $23,985; Simpson Bros. Corp., Boston, $29,362; Marshall Rogers Co., Boston, $29,700.

Westfield, Mass.—The Appropriation Com. of Council has recommended 200,000,000 gal. reservoir. J. L. Hyde, Town Engr.

Hartford, Conn.—This city is preparing plans for water purification plant in connection with its increased supply. Caleb Mills, Saville, Ch. Engr.; Robt. Spurr Weston, 14 Beacon St., Boston, Consulting Engr.

The Governor has signed the bill which authorizes Hartford Water Board to issue $2,000,000 bonds for improvements.

Batavia, N. Y.—Council has engaged Chester & Fleming, of Pittsburgh, Pa., to make a study of conditions at the municipal water works and submit a report regarding its needs. The report will embody suggestions with reference to a water filtration plant and pumping machinery.

Brocton, N. Y.—H. M. Flemming, Village Clk., writes bonds in the sum of $20,000 were sold Apr. 9, to be used for construction of water works.

Gilbertsville, N. Y.—Permission to construct an additional water supply system has been granted by the State Conservation Comn.

Harriman, N. Y.—Knight & Bush, Monroe, N. Y., reported to have completed plans for water works for the village; cost about $60,000.

Contracting News

Of Special Interest to Engineers, Contractors, Builders and Manufacturers of Engineering and Building Supplies

New York, N. Y.—See "Miscellaneous."

North Gates, N. Y.—Bids desired until Apr. 27 by Water Comrs., North Gates Water Dist. (R. B. Wilson, Chmn., 815 German Insurance Bld., Rochester), for constructing system of water works, advertised in Engineering Record. H. C. Kittredge, Engr., 815 German Insurance Bldg., Rochester.

Plainfield, N. J.—Public Utility Comn. has approved application of Plainfield Water Co. to issue $100,000 bonds, part of which to be spent for improvements and extensions.

★**Barnesboro, Pa.** — Contract reported awarded Apr. 1 by Boro. Council for constructing a 500,000-gal. concrete lined reservoir and for the necessary pipe to connect the same to present mains to Polo C. Azzara, of Barnesboro. Chas. E. Schlicher, Boro. Engr.

Coatesville, Pa.—Press reports state that City Council will soon sell $185,000 bonds for construction of water works on Rock Run.

Gallitzin, Pa.—Citizens voted Apr. 6 to issue $60,000 bonds to acquire or construct water works.

Hatfield, Pa.—Plans being prepared by Ralph Shafenecker, of North Wales, for municipal water works, to cost $16,000.

Lancaster, Pa.—Citizens voted Apr. 6 to issue $125,000 bonds for new pump and boilers. I. Carpenter, City Engr.

Philadelphia, Pa.—See "Sewerage and Sewage Disposal."

Reading, Pa.—Bids desired Apr. 20 by City Clerk for constructing filter unit on Fritz's Island, Millmont, Berks County, Pa., advertised in Engineering Record. Jacob H. McConnell, Supt. Dept. Streets and Pub. Improv.; Edmund B. Ulrich, City Engr.

★**Kensington, Md.**—Contract reported awarded to Cantrell Constr. Co., of Philadelphia, Pa., for constructing water works and sewer system, for which $50,000 bonds have been sold.

Mt. Ranier, Md.—Press reports state that work will probably soon commence on construction of water works and a sewer system. Fred E. Weber, Mayor.

Washington, D. C.—Bids desired until May 4 by Bureau Supplies and Accounts, Navy Dept., Wasington, D. C., for following supplies, at various navy yards and naval stations: Brooklyn, N. Y., Schedule 8182 — Miscellaneous copper seamless drawn pipe; Washington. D. C., Schedule 8200—Miscellaneous galvanized iron pipe; Norfolk, Va., Schedule 8190—58.300 lbs. condenser admiralty metal tubes, 6000 lbs. brass tubing; Newport, R. I., Schedule 8200—Miscellaneous ebonite tubing and miscellaneous half hard brass tubing.

Canton, O.—B. F. Faust, Clk. of Council, writes that about $47,000 will be spent to relay larger mains in various streets to be improved; also extension of mains of various sizes. L. B. Ohliger, Supt. Water Works.

Cleveland, O.—Bids desired until Apr. 22 by A. R. Callow, Comr. Purchases and Supplies, for steel work for 2 shafts for Central Ave. River Tunnel, Div. of Water.

Greenwich, O.—Plans being prepared for a new reservoir, pump, etc. F. H. Daniel, City Clk.

Marietta, O.—Bids will probably be received latter part of May by J. W. Frye, Dir. Pub. Service, for a 4,000,000 or 6,000,000-gal. reservoir.

★**Sandusky, O.**—Contract was awarded Apr. 3 by Bd. Public Service (John J. Molter, Dir.) for furnishing material and constructing a 42-in. intake from pumping station to a point in Sandusky Bay 1200 ft. off shore; also a concrete intake and crib, a concrete well in pumping station, 400 ft. 30-in. pipe from sewage treatment plant to a point in Sandusky Bay; all dredging, rock excav., valves, pipes and submarine universal joints, necessary for completion, to A. A. Thatcher, Toledo, at $37,839. Next 3 lowest bids: Lake Shore Constr. Co., Cleveland, $39,083; Sherley-Sheldon Dredging Co., Toledo, $43,384; Great Lake Dredge & Dock Co., Chicago, Ill., $45,636.

Toledo, O.—Bids reported desired until Apr. 20 by A. W. Boardman, Dir. Pub. Service, for furnishing 3000 curb stops, 5000 corporation cocks and 252 gate valves.

★**Fremont, Mich.**—Contract for constructing water works reported awarded to Traverse City Iron Co., Traverse City, at $11,960.

Schoolcraft, Mich.—O. A. Fellows, Village Clk., writes that bids will be opened Apr. 27 for constructing water works, from plans of Smith & Boulay, of Toledo; cost about $20,000. Bonds already sold.

Kewanee, Ill.—Citizens in west end of city have petitioned Council for water main extensions; cost about $11,000.

Colo, Ia.—Citizens voted Apr. 5 to issue $18,000 bonds for constructing water works, from plans of L. W. Cox, Youngerman Blk., Des Moines. H. E. Ransom, City Clk.

★*Items marked thus give the names of parties awarded contracts.*

★**Goldfield, Ia.**—Contract awarded Apr. 2 for constructing water works to C. W. Roland Co., of Des Moines, at $10,475. Other bids: Des Moines Bridge & Contr. Co., Des Moines, $10,350; Whyte & Son, Goldfield, $10,500; Alamo Bridge & Contr. Co., Minneapolis, Minn., $10,600; M. C. Fraser, Minneapolis, Minn., $10,900. Robt. P. Keith, City Clk.

Linn Grove, Ia.—Town desires to install water works and would like to correspond with engineers having experience in such work. Address C. A. Fulton, Pres. Water Bd.

Central City, Neb.—Citizens have voted to issue $21,000 bonds for waterworks extensions.

Havre, Mont.—City Council considering installation of a new water supply system.

St. Louis, Mo.—E. E. Wall, Water Comr., in his annual report, recommends reconstructing Compton Hill reservoir at a cost of $625,000; also that a new reservoir with a capacity of 100,000,000 gals. be constructed at Baden to equalize distribution from Chain of Rocks, at a cost of about $1,000,000; covering basins at Bissell's Point and Baden, estimated cost $325,000; and a new conduit costing about $300,000 to be built from Baden to Bissell's Point.

Arkansas City, Ark.—The Lambe & Denmarke Light & Water Co. reported to have purchased local water works system and company proposes to install an electric light system and rebuild pumping plant; cost of work estimated at about $50,000.

Booneville, Ark.—Fred D. McCormack, City Clk., writes that, on account of a recent decision of Supreme Court, the construction of water works will be held up for a while. Will probably form an improvement district to carry on the work.

Craig, Colo.—Citizens voted Apr. 6 to issue $40,000 bonds for constructing water works. Engineer not yet selected.

Marshall, Okla.—City Council will soon call an election on issuing $25,000 bonds for construction of municipal water works and electric light system, and have retained Benham Eng. Co., Oklahoma City, to make investigations, draw plans and specifications and supervise construction.

Aberdeen, Wash.—It is reported this city will seek to secure water and power rights on Wynooche River and form a Wynoochee Water Dist. with a view to building there a gravity water system.

Ephrata, Wash.—The water system is reported to have been sold to F. P. Grover for $20,000, and the owner plans extensions and improvements.

Everett, Wash.—Burns & McDonnell, of Kansas City, Mo., have completed and presented to Council report on water works of city; they value the present water works at $1,091,633, and estimate cost of connecting the Sultan River supply with present system at $585,000, or with an auxiliary supply from Miners Creek at $623,170.

Kirkland, Wash.—J. S. Courtright, City Clk., writes bids are desired Apr. 19 for 16,065 ft. 8-in. wood pipe, a tank and a pump; total cost $14,000. Engineers, Reitze, Storey & Duffy, Northern Bank Bldg., Seattle.

Seattle, Wash.—A. H. Dimock, City Engr., will recommend to City Council construction of a 1700-ft. reinforced concrete wing dam along north bank of Cedar River at scene of recent leaks in impounding basin of Cedar River Dam; cost about $1,500,000.

Plans approved by Bd. Pub. Wks. for water mains on 37th Ave. N. E., to cost about $15,000, and on 5th Ave. W., to cost $12,000.

Spokane, Wash.—This city will install 53 fire hydrants, under supervision of the Water Dept., at a cost of $13,000. A new main is also included in the improvement. Morton MacCartney, City Engr., is preparing the plans.

Eugene, Ore.—Following are lowest bids for construction of reservoir opened by Council, Apr. 4: Earth excav., rock grading, back fill, supply and outlet pipes and 1,130 ft. 6-in. concrete drain pipe. The Mohawk Wood Yard of Eugene, $6,758; for erecting reservoir, city to furnish all cement, gravel, etc., H. E Doering, of Portland, $9,245; or for work complete, Andrew & Harrar, of Portland $23,900. C. W. Geller, Secy. and Acting Supt. Water Works.

San Diego, Cal.—Bids desired until May 15 at the Bureau Yards and Docks, Navy Dept., Washington, D. C. (H. R. Stanford, Ch.), for sewer and water systems at Naval Radio Station, San Diego, according to Spec. 2151.

San Francisco, Cal.—The Board of City Supervisors has appropriated $181,944 for carrying out a construction program at Hetch Hetchy, to include clearing reservoir, $40,000; diversion tunnel, $40,000; diversion dam, $10,500; completion of Contract No. 1, $29,444, etc.

★**West Kildonan, Man.**—Contract reported awarded by Council to Dominion Constr. Co., Winnipeg, for construction of water mains, at $35,000.

SEWERAGE AND SEWAGE DISPOSAL.

Items Arranged Geographically

Amherst, Mass.—A bill has been reported in the House to allow town to appropriate $30,000 for construction of a sewer system.

Andover, Mass.—Citizens voted Apr. 1 to appropriate $75,000 for construction of Abbott and Maryland Village sewer in town of Andover, from plans of McClintock & Woodfall.

Boston, Mass.—The Mayor has signed the City Council order providing for issue of $1,000,000 bonds for sewerage works. Of this amount $400,000 is to be expended for work in Charles River basin drainage area.

Boston, Mass.—Bids desired until Apr. 20 by L. K. Rourke, Comr. Pub. Wks., for pipe sewers and drains in Hautevale St., private land and Wiggin St.

Fall River, Mass.—The Com. on Finance on Apr. 2 agreed on sewer orders which will raise the outlay for that purpose to $85,000; it also voted to recommend an additional $65,000 for sewers.

★**Fitchburg, Mass.**—Contract awarded Apr. 7 by Bd. Sewage Disposal Comrs. for constructing Sect. 7 of main intercepting sewer, covering a distance of about 3400 ft., to Jos. Long & Co., Leominster, at $12,099. Other bidders: F. A. Gammino, Providence, R. I., $14,065; D'Onfro Bros., Leominster, $15,688; Ralph E. Bull, Fitchburg, $16,931.

Marlboro, Mass. — City is planning sewer extensions to cost $58,000. Warren J. Simonds, City Engr.

Westfield, Mass.—Appropriation Com. of Council has recommended 7,700 lin. ft. 8 to 24-in. sewer.

Albany, N. Y.—See "Paving and Roads."

Albany, N. Y.—Contract will shortly be let by city for construction of a new system of sewers in Washington Ave., from Park Pl. to Lexington Ave., to replace the box sewer; to be of 36-in. reinforced concrete pipe.

Brooklyn, N. Y.—Bids desired until Apr. 21 by L. H. Pounds, Boro. Pres., to furnish material and construct sewers in E. 32d, E. 27th and 55th Sts. and sewer basins at Albany Ave. and at Ocean Ave. Engineer's preliminary estimate $7,748.

The Public Service Comn. for the First Dist., New York, has asked Bd. of Estimate and Apportionment for an extra appropriation of $48,270 to build an off-line sewer from Flatbush Ave. under 7th Ave., Park Pl., 6th Ave., Sterling Pl. and Butler St. to a connection with inverted siphon at 44th Ave. and Butler St.

Buffalo, N. Y.—Following are lowest bids opened by Bd. Pub. Wks. Apr. 3 for sewers: Trunk sewer from Swan and Hamburg Sts. to Seneca, and Hydraulic St.: Jos. F. Stabell Co., at $110,639; Fillmore Ave. sewer, from north of Delavan Ave. to Kensington Ave., Fahning-Geary Constr. Co., $22,249; also same company, at $4,994, for sewer at Calais St.

Great Neck Station, L. I., N. Y.—Bids desired Apr. 30 by Sewer Comn. (John B. Gilliar, Chmn.) for constructing about 12 miles of 8 to 24-in. vitr. pipe sewers, appurtenances and 2 pumping stations, c.-i. force mains and disposal works, sedimentation tanks, etc., advertised in Engineering Record. Carl H. Watson, Designing and Supervising Engr.

Huntington, L. I., N. Y.—Plans and specifications for proposed sewer system and sewage treatment works have been approved by State Dept. of Health and will be ready for distribution to prospective bidders after Apr. 15, bids to be received about 3 weeks later. Engineer, Geo. W. Fuller, 170 Bway., New York.

★**Port Chester, N. Y.**—Contracts for sewer work (bids opened by Village Trustees Apr. 5) awarded as follows: Engineer, J. S. Odell, Chemical Bldg., Port Chester.)

★Constructing intercepting, connecting and outlet sewers, awarded to Wm. J. Mertz, Port Chester, as follows: 2500 ft. 30-in. vitr. sewer pipe, 16 ft. deep, $6.60; 1050 ft. 27-in., 10 ft. deep, $5.10; 250 ft. 20-in., 9 ft. deep, $3.22; 1070 ft. 12-in. 9 ft. deep, $1.15; 1220 ft. 6-in. 9 ft. deep, $2.40; 4000 cu. yds. rock excav., $2.75; 40 manholes, 9 to 16 ft. deep, ea. $66; 1000 ft. 30-in. c.-i. sewer pipe, $5; total $47,216.

★Driving tunnel, etc., awarded to Daly & Merritt, Port Chester, $22,690.

★Constructing pump house and sedimentation tanks, awarded to Suburban Eng. Co., 18 W. 38th St., New York, $39,700.

★**Rochester, N. Y.**—Contract reported awarded by the Bd. Contract and Supply Apr. 7 for Main and Front Sts. sewers to Michael D. Ripton, of Rochester, at $117,715.

Yorkville, N. Y.—Bids desired until Apr. 30 by Bd. Village Trus. (R. W. Bryson, Clk.) to furnish material and extend sewer system, requiring approximately 6734 lin. ft. 12 and 8-in. vitr. pipe sewer, etc. W. G. Stone & Son, Engrs., Mann Bldg., Utica.

Brooklyn, N. Y.—Following are 4 lowest bids opened Apr. 9 by President Boro. Brooklyn for furnishing material and constructing sewers in Tompkins Ave., Fulton St. and Brooklyn Ave.: (a) Litchfield Constr. Co., Flatbush Ave., Brooklyn, $273,849; (b) Newman & Carey Co., Montague St., Brooklyn, $288,980; (c) J. F. Cogan Co., Woolworth Bldg., New York, $289,285; (d) Jas. P. O'Leary, Pelham Manor, New York, $296,397.

	(a)	(b)	(c)	(d)
2,737 lin. ft. 162-in. sewer in tunnel	$75.50	$83.66	$83.00	$85.50
818 lin. ft. 126-in. sewer in tunnel	71.47	63.00	66.00	65.00
17 lin. ft. 90-in. sewer	50.00	30.00	30.00	35.00
24 lin. ft. 24-in. sewer	5.00	6.00	5.00	4.50
12 lin. ft. 15-in. sewer	2.50	3.50	4.00	3.50
2 manholes, Class "A"	200.00	550.00	400.00	300.00
3 manholes, Class "C"	500.00	290.00	300.00	300.00
3 manholes, Class "D"	50.00	50.00	35.00	60.00
2 storm overflow connections, "A"	500.00	130.00	500.00	700.00
1 storm overflow connection, "B"	1,500.00	1,150.00	1,500.00	2,000.00
1 overflow connection and drop chamber, "C"	2,000.00	3,250.00	2,500.00	3,000.00
200 M ft. b. m. foundation planking	.01	.01	.01	.01
110 M ft. b. m. sheeting and bracing	.01	.01	.01	.01
4,000 cu. yds. brick or concrete masonry about sewers in tunnel	.01	.01	.01	.01
100 cu. yds. concrete, Class "B"	9.00	6.00	6.50	.01
100 bbls. Portland cement	1.50	2.00	1.50	1.50
10 cu. yds. brick masonry	10.00	15.00	10.00	14.00

Hammondton, N. J.—W. R. Seely, City Clk., writes that the bonds to be issued are to pay for sewer system already completed.

★**Ventnor City (P. O. Atlantic City), N. J.**—E. Steelman Royal, City Clk., writes contracts were awarded Apr. 12 for pipe line to Cantrell Constr. Co., Philadelphia, Pa., and for buildings for sewage disposal plant to S. H. Henry, Ventnor City.

Indiana, Pa.—Bids reported desired until May 3 by Thos. Pealer, Engr., for constructing 1 mile 8-in. and ½ mile 6-in. pipe sewers.

Philadelphia, Pa.—Bids desired until Apr. 29 by M. L. Cooke, Dir. Dept. Pub. Wks., for branch and main sewers, Schedules A to D, and Schedule E, shafting and belt mule drive over engine No. 1, at Pennypack Creek Pumping Station, advertised in Engineering Record.

Pittsburgh, Pa. — See "Paving and Roads."

Reading, Pa.—Bids desired until Apr. 20 by City Clerk for constructing storm sewers on W. Elm and Elm Sts., advertised in Engineering Record. Jacob H. McConnell, Supt. Dept. Streets and Pub. Improv.; Edmund B. Ulrich, City Engr.

Sharon Hill, Pa.—Council has passed ordinance providing for an issue of $10,000 bonds for street improvements, sewer extension, etc.

Slippery Rock, Pa.—Engineer S. J. Taylor, of Slippery Rock, writes that nothing definite will be done for a few weeks toward constructing sewage disposal plant at Slippery Rock State Normal School.

Wilkesbarre, Pa.—Bids desired until May 25 by Fred. H. Gates, City Clerk, for constructing brick, segment block and terra cotta pipe sewers, advertised in Engineering Record. C. N. Loveland, Supt. Streets & Pub. Improv. B. K. Finch, City Engr.

Baltimore, Md.—Ezra B. Whitman, Consulting Engr., City Water Bd., in a report to the County Comrs., estimates cost at $200,000 to construct a sewer system for Arlington and vicinity.

Baltimore, Md.—Bids reported desired until Apr. 21 by Sewerage Comn. (C. W. Hendrick, Ch. Engr.) for lateral sewers and house connections in Dist. 37-A, including 31,320 ft. 8 in. to 24 in. sewer and 12,700 ft. house connections.

Kensington, Md.—See "Water Works."

Mt. Ranier, Md.—See "Water Works."

Washington, D. C.—Bids desired until Apr. 19 by Comrs. D. C. (Oliver P. Newman, Chmn.) to furnish and deliver complete and ready for erection a vertical cross-compound condensing engine for use in connection with generating plant, Sewerage Pumping Station.

Augusta, Ga.—Two lowest bids opened by Health Com. of Council for 900 ft. of brick sewer, 7 ft. diam., and 1200 ft. of brick sewer, 6½ ft. diam., on alley between Chestnut and Forest Sts., a continuation of the Camille St. sewer: McKenzie Constr. Co., Augusta, $19,650, and T. O. Brown & Son, Augusta, $24,665.

La Fayette, Ga.—Bids desired until Apr. 19 by D. W. Herndon, Mayor, for material and constructing sewerage system, including 4100 ft. 10-in. and 27,000 ft. 8-in. terra cotta pipe, 12 10 x 6-in. and 994 8 x 6-in. Y branches, 196 bbls. cement, 75,000 hard burned brick, 23 single flush-tank siphons, 2 double flush-tank siphons, etc. J. B. McCrary Co., Engrs., 3d Natl. Bank Bldg., Atlanta.

Macon, Ga.—Local press reports state bids are desired by City Clerk for the proposed sewer in West Vineville, to cost about $15,000.

Tampa, Fla.—Election will soon be held to vote on issuing $250,000 bonds for additional sewer work.

Cleveland, Tenn.—State Legislature has passed bill providing for construction of sewer system, paved streets and erection of city hall.

Park City, Tenn.—City Council considering issue of $25,000 bonds for sewers, schools and street improvements.

★**Alliance, O.**—Contract awarded Apr. 6 for constructing sewers and pavement on N. Arch Ave., to F. A. Downes Constr. Co., Canton, as follows: 15,000 cu. yds. grading, 44 cts.; 310 sq. yds. paving, concrete base, $1.75; 164 lin. ft. curb, 55 cts.; 11 catch basins, each $25; 164 lin. ft. 4-in. curb drain, 20 cts.; 70 lin. ft. paving headers, 30 cts.; 350 sq. yds. concrete walk, $1.35; 90 lin. ft. lead water service, 20 cts.; 1210 lin. ft. 4 to 12-in. sanitary sewer, 45 to 70 cts.; 690 lin. ft. 12 to 24-in., 80 cts. to $1.50; 1530 lin. ft. 2-ring, 42-in. brick, $3.25; 13 manholes, each $20; total, $15,745. Next 3 lowest bids: Portage Eng. Co., Akron, $17,082; Central Ohio Contr. Co., Cleveland, $18,386; J. B. Sheets Co., Pittsburgh, Pa., $18,539. J. H. Hogan, Clk. Bd. Pub. Service.

★**Cleveland, O.**—Local press reports state that the Chas. Fath & Co., of Cleveland, has decided to assign its contract for excavation work to the Fred R. Jones Co., of Chicago; cost of proposed work about $100,000.

Cleveland, O.—Bids desired until Apr. 22 by A. R. Callow, Comr. Purchases and Supplies, to construct sewers in portions of E. 65th St., Kingsbury Run Culvert extension and St. Clair Ave.

★Contracts for sewers awarded by Bd. Pub. Service on bids opened Mar. 25 as follows: Renaugh Constr. Co., for Dugway Brook sewer, $79,903; to Amata Constr. Co., for sewer on Waterloo Rd. N. E., $13,550.

Ft. Wayne, Ind.—City Council considering construction of a main sewer in the Spy Run Dist.

Escanaba, Mich.—Citizens voted to issue $80,000 bonds for sewer system.

★**Maywood, Ill.**—Contract awarded Apr. 1 by Bd Local Improv. for 2½ miles concrete and vitr. tile pipe outlet sewer and about 5½ miles of 12 and 15-in. lateral sewers to Tonkawa Constr. Co., Kansas City, Mo., at about $85,000. Robt. E. Williams, Engr., 118 N. La Salle St., Chicago.

Sheboygan, Wis.—Sewers for northwest part of city will be laid as soon as necessary land condemnation is secured. C. U. Boley, City Engr.

Grinnell, Ia.—Bids were opened Mar. 31 for construction of 69,000 ft. of 8 to 24-in. sanitary sewers, sedimentation tank, filters and sludge beds in 3 sections, as follows (Engineers, Iowa Eng. Co., Clinton):

★Main sewers: Wm. F. Riley, St. Louis, Mo., $35,042 (awarded contract); Inter-Mountain Bridge & Constr. Co., Tecumseh, Neb., $36,913; J. W. Turner Improv. Co., Des Moines, $39,345; Henry Rees, Quincy, Ill., $39,624.

★Branch or lateral sewers: Wm. F. Riley, St. Louis, Mo., $31,009 (awarded contract); Thos. Cary & Sons, Clinton, $32,942; Arthur A. Dobson Co., Lincoln, Neb., $33,360; H. J. Cathroe Co., Omaha, Neb., $34,396.

★Outlet sewer and disposal plant: J. W. Turner Improv. Co., Des Moines, $35,956 (awarded contract); Ward & Weighton, Sioux City, $38,739; Dearborn Constr. Co., Waterloo, $39,698; Wm. Horrabin, Iowa City, $40,626.

Jewell Junction, Ia.—Bids desired by M. J. Severson, Town Clk., until May 3 for constructing sanitary sewers, disposal plant, outlet sewers and lateral sewers.

Mt. Ayr, Ia.—Plans being prepared by N. T. Archer & Co., Kansas City, Mo., for the proposed sewer system.

★**Postville, Ia.**—Contract for sewer system and disposal plant from plans of Aetna Eng. Bureau, Chicago, Ill., has been awarded to M. Tschirgi & Sons, Cedar Rapids, at following bid: 14,850 lin. ft. 8-in. vitr. tile pipe sewer, 8.5 ft. deep, including excav. and backfill, all bituminous joints, house slants and specials, 57.5 cts.; 1560 lin. ft. 10-in., 65 cts.; 6880 lin. ft. 12-in., 71 cts.; 75 brick manholes, including c.i. cover, ea., $25; sewage disposal plant: 3620 cu. yds. excav., 50 cts.; 16 cu. yds. plain concrete, $7; 144 cu. yds. reinforced concrete, $12.50; 2200 cu. yds. filter sand, $2.40; 97 cu. yds. filter gravel, $2.60; 360 lin. ft. 12-in. vitr. tile pipe sewer, 4 ft. deep, 65 cts.; 200 lin. ft. 12-in. for underdrains, with open joints, including T specials, 60 cts.; 1600 lin. ft. 6-in., 15 cts.; 2 12-in. c.-i. alternating siphons, ea., $150; 7.25 squares galv. iron corrugated roofing, $18; total cost, including valves, etc., $26,984.

★*Items marked thus give the names of parties awarded contracts.*

Tripoli, Ia.—Bids reported desired until Apr. 30 by H. W. Bockhaus, City Clk., to construct sewer system. Probable cost $35,000.

St. Paul, Minn.—The State Senate Finance Com. has appropriated $30,000 for state aid to the sewer system which will drain North Hamline and the State Fair Grounds.

Dunbar, Neb.—See "Water Works."

Belgrade, Mont.—J. V. Kenyon, Town Clk., writes that it is not proposed to install sewer system for about 2 years.

Butte, Mont.—Following reported to be lowest bids opened by City Council for constructing sewers on the flats: Robt. Metcalf, Butte, $88,467; Phil Dunn & Co., Calgary, Alta., $93,963; Jas. Kennedy Constr. Co., Portland, Ore., $95,973; R. M. Bardsen & Co., Butte, $105,459.

Butte, Mont.—Four lowest bids opened by City Council for constructing sewer on flat south of Silver Bow Creek: Robt. Metcalf, $88,467; Phil Dunn, $93,963; Jas. Kennedy, $95,973, and R. M. Bardsen, $105,459.

Brunswick, Mo.—Bids desired until Apr. 22 by L. E. Merrill, City Clk., to furnish material and construct sewers and appurtenances in Sewer Dist. No. 1. Tuttle-Ayers-Woodward Eng. Co., Engrs., Orear-Leslie Bldg., Kansas City, Mo.

Paragould, Ark. — City Council has passed ordinance creating an improvement district for the purpose of installing a sewer system, to cost about $25,000.

Dallas, Tex.—Local press reports state that bids are desired by R. R. Nelms, City Comr., for another unit for sewage disposal plant at Oak Cliff on the Cedar Creek interceptor and overflow sewer; cost about $16,000.

Chehalis, Wash.—City Council reported considering construction of a concrete sewer in southern section of city, to cost approximately $60,000.

★**Enumclaw, Wash.**—Contracts reported awarded to Denny Renton Clay & Coal Co., Hoge Bldg., Seattle, for sewer pipe and to Pacific Sewer & Watermain Constr. Co., Tacoma, for ditch work in connection with sewer system; cost about $25,000.

Spokane, Wash. — Two lowest bids opened Apr. 8 for constructing sewers Contract No. 1, as follows: W. J. Hoy & Co., St. Paul, $25,500, and P. L. Langan, Spokane, $28,064. F. K. McBroom, Comn. Pub. Wks.

Spokane, Wash.—City Council has been petitioned for sewers in alleys between Fairview and Frederick Aves. Estimated cost $12,000.

Klamath Falls, Ore.—City Engineer completed plans for sewers to cover district below Oak St. and east of 6th St., to include septic tank and other improvements; cost approximately $140,000.

Portland, Ore.—City Eng. Dept. reported preparing plans for sewers, estimated to cost $28,000. A. L. Barbur, City Aud.

Portland, Ore. — Local press reports state the estimate for sewer construction for the year made by Municipal Sewer Engineer Sharp is $240,000, including 60,000 ft. of pipe, ranging from 8 to 24-in. diam. and some larger pipe.

★**Huntington Beach, Cal.**—Contract awarded Mar. 29 for constructing outfall portion of sewer system and septic tank to Helland Constr. Co., San Diego, at $11,900. Next 3 lowest bids: Bert Noble, Huntington Beach, $11,920; S. M. Kerns, Venice, $13,782; California Ornamental Bk. Co., Los Angeles, $17,777. Chas. R. Nutt, City Clk.

San Diego, Cal.—See "Water Works."

Mesa, Ariz.—Town Council reported on Apr. 8 accepted plans of John Sandberg & Co., for sewer system. Harry L. Hancock, City Engr.

★**Phoenix, Ariz.** — Contract awarded Mar. 29 for constructing sewer system for Phoenix Indian School and Sanatorium, to Thos. M. Forson, of Kansas City, Kan., at $22,347.

★**Salt Lake City, Utah.**—Contract reported awarded by City Comn. Apr. 8 to Ryberg Bros., for sewer extension No. 250, at $10,039.

American Falls, Idaho.—Bids reported desired until May 7 by O. F. Crowley, Village Clk., to construct sanitary sewers in Local Sewerage Improvement Dist. No. 1, Village of American Falls, requiring approximately 18,900 ft. 12 and 8-in. vitr. pipe, 3000 ft. ¾-in. w. i. pipe, 18 concrete manholes, 30 concrete flush tanks.

Montreal, Que.—A press report states that this city will spend this year $900,000 for sewers.

BRIDGES.

Items Arranged Geographically

St. Johnsbury, Vt.—Bridge is to be constructed here by State, city and Boston & Maine R. R. Co.; cost $32,000.

Brookline, Mass.—At a recent town meeting $13,000 was appropriated for new bridges over railroad tracks at Aspinwall Ave.

★**Lawrence, Mass.**—Contracts awarded by Bridge Comrs. for supplies for Central Bridge to John J. Evans, Lawrence: Screened sand, 69 cts.; gravel, $1.09; crushed stone, $1.45; price given per cu. yd.

Northampton, Mass.—Bids desired until May 4 by County Comrs., Northampton (Frank A. Brooks, Chmn.), for reconstructing 2 piers and repairing superstructure of bridge across Connecticut River between Northampton and Hadley. J. R. Worcester, Engrs., 79 Milk St., Boston.

Canton, N. Y.—Bids desired until May 5 by H. M. Barber, Town Clk., at Canton, to construct a concrete-steel arch bridge over the Grasse River, Village of Canton, advertised in Engineering Record. Concrete-Steel Eng. Co., Engrs., Park Row Bldg., New York, N. Y.

Cobleskill, N. Y.—Bids desired until May 3 by Lorenzo J. Gordon, Town Supt. Highways, for constructing a bridge over Cobleskill Creek, advertised in Engineering Record. Ogden Eldredge, Town Clk.

★**Troy, N. Y.**—Contract awarded Apr. 6 by Bd. Contract & Supply (John J. McLaughlin, Secy.) for furnishing material and constructing an ornamental approach at Peoples Ave. and 12th St. to Nial Bros. Constr. Co., Troy, at $6,252. Work includes 1200 cu. yds. earth and rock excav., 180 cu. yds. first-class concrete, 1900 sq. ft. concrete sidewalk, 2000 lbs. twisted iron reinforcements, 4 ornamental bronze standards, etc.

Walkill, N. Y.—Town of Shawangunk voted Apr. 6 for a bond issue to construct a concrete-steel bridge over Wallkill River at Wallkill; cost about $30,000. Plans and specifications are being prepared by Concrete Steel Eng. Co., Park Row Bldg., New York, and bids will be asked for shortly. The bridge will have 3 spans.

★**Somerville, N. J.**—Contracts awarded bids opened Apr. 2 for constructing 5 bridges as follows: Blackwell's Mills Bridge, to F. W. Schwiers, Jr., Co., 90 West St., New York, $5,155; Cliff St. bridge, to Whittaker & Diehl, Harrisburg, Pa., $6,578; Robert Kay Bridge, to Hoffman Constr. Co., Bernardsville, $1,184; Poggio Bridge to M. W. King, Far Hills, $743, and Thread Mills Bridge, to Wm. R. Moore, Bedminster, at $1,263. Wm. S. Kershaw, Clk. Bd. Chosen Freeholders.

Gettysburg, Pa.—Bids reported desired until Apr. 27 by County Comrs. (Geo. W. Baker, Clk.), Gettysburg, to construct reinforced concrete arch bridge over Beaver Creek, on road leading from East Berlin to Spring Grove, between Adams and Young counties.

McKees Rocks, Pa.—County Comrs. at Pittsburgh forwarded to War Dept. at Washington, D. C., plans providing for a 1100-ft. span bridge over Ohio River at McKees Rocks.

Media, Pa.—Bids desired until May 3 by O. L. Davis, Co. Compt., Media, for constructing bridge on Baltimore Pike, over Ridley Creek, between Middletown and Upper Providence Townships, advertised in Engineering Record.

Philadelphia, Pa. — Following bridges have been authorized by ordinance. Bids will be invited in near future. Those desiring notification when plans and specifications are ready should address Chief Engineer, Bureau of Surveys, Philadelphia (Jonathan Jones, Asst. Engr. of Bridges):

Fifth St., over North Pennsylvania R.R., 70 ft. wide, over 4 tracks. Skew. Steel floor, concrete substructure and encasement. Outside cost $70,000.

Diamond St., over Connecting Ry., 60 ft. wide, over 6 tracks. Skew. Steel floor, concrete substructure and encasement. Outside cost $75,000.

Cambria and "A" Sts., over Richmond Br. P. & R. Ry., 52 ft. wide, over 13 tracks. Skew. Steel floor, concrete substructure and encasement. Outside cost $62,000.

3d St., under Phila & Newtown, Conn., R.R., 2 tracks over 50 ft. street. Steel superstructure. Concrete abutments. Outside cost $32,000.

Holme Ave., over Pennypack Creek. Plain concrete arches, 2 50-ft. spans, 1 80-ft. span. Reinforced concrete wing walls. Outside cost $80,000.

58th St., over Baltimore Central R.R. Reinforced concrete arch, 60-ft. span, 30-ft. wide. Ornamental balustrade. Outside cost $18,000.

Fisher Ave., under North Penna. R.R. 2 tracks over 60 ft. street. Steel superstructure. Concrete abutments. Outside cost, $32,000.

Whitby Ave., over Baltimore Central R.R., 80 ft. wide, over 4 tracks. Steel floor, concrete substructure and encasement. Outside cost $42,000.

Sherwood Ave., over Indian Run. Concrete arch, 20-ft. span, 56-ft. wide. Ornamental railings. Outside cost $30,000.

Bids desired Apr. 29 by M. L. Cooke, Dir. Dept. Pub. Wks., for Schedule F, bridge on line of 58th St. over Philadelphia & Central R.R., advertised in Engineering Record.

Reading, Pa.—Bids desired until Apr. 26 by D. K. Hoch, Co. Controller, to construct a reinforced concrete bridge across Willow Creek, Richmond Township, to be known as Fleetwood Bridge.

★Contract awarded Apr. 13 for constructing bridge over Hay Creek at White Bear to L. H. Focht & Son, Reading, at $2,998. D. K. Hoch, Co. Controller.

Suffolk, Va.—Bids reported desired until Apr. 22 by Clerk of Circuit Court, for constructing a bridge over Nansemond River, about ¼ mile from Suffolk; consisting of 104 ft. 8 in. draw span and two 19 ft. approaches.

Hamlin, W. Va.—Bids desired until May 3 by County Court, Hamlin, for steel highway bridge at Town of Ranger, over Guyandotte River, consisting of an 82-ft. span, a 192-ft. span and a 42-ft. span, with 16-ft. roadway. Oliver & Maupin, Engrs., Huntington.

★**West Virginia.**—Contracts have been awarded to the Virginia Bridge & Iron Co., Roanoke, Va., as follows: For a steel viaduct at Wirth, 680 ft. long, 162 ft. high, 340 tons of steel for United Pocahontas Coal Co., and steel viaduct at Elkhorn, 630 ft. long, 100 ft. high, 267 tons steel, for Crozer Coal & Coke Co.

Jasper, Ala.—Bids desired May 10 by Chas. M. Sartain, Judge of Probate and Chmn. Co. Comrs., for building 4 steel bridges—one over Black Warrior River near Cordova, one over Sipsey River, one over Mulberry River and one over Town Creek.

Natchitoches, La.—Bids reported desired until May 3 by G. H. Pierson, Pres. Police Jury, to construct steel bridge over Cane River about 9 miles below Natchitoches.

Clinton, Tenn.—Lowest bid opened by Anderson County Court, Mar. 25, for constructing 3 steel bridges, one at Clinton, one at Moore's Ferry and another at Edgemoore submitted by Vincennes Bridge Co., Vincennes, at $50,700.

Akron, O.—C. L. Bower, Co. Clk., writes bids are desired Apr. 28 for constructing 2 steel bridges, 75 x 78 ft.; one in Coventry Township, to cost $3,473, and other in Boston Township, to cost $4,812. E. W. Paul, Co. Engr.

Dayton, O.—Bids desired until May 7 by County Comrs., Dayton (W. H. Aszling, Secy.), to furnish material and construct a steel bridge superstructure and concrete substructure to replace Bridge No. 64, Mad River Township, over Mad River, about ½ mile northwest of Harshman, destroyed by flood of Mar. 25, 1913. Bridge shall have 2 spans, 108 ft. each, c. to c., roadway 18 ft., creosoted plank and block floor; also steel bridge superstructure and concrete substructure to replace Bridge No. 74, Wayne Township, over Great Miami River at Johnston's Station, destroyed by flood of Mar. 25, 1913. Bridge shall have 2 spans of 140 ft. each, c. to c., 18-ft. roadway, creosoted plank and block floor.

Fremont, O.—Bids reported desired until Apr. 30 by County Comrs. to construct the Tyndall Bridge over Sandusky River, in Ballville Township. It will be of steel, 2 spans. W. F. Schepflin, Co. Surveyor.

Struthers, O.—Co. Comrs. at Youngstown voted to construct concrete bridge over Yellow Creek; cost about $7,500.

Toledo, O.—Bids desired until Apr. 30 by County Comrs. to furnish material and construct bridge work as follows: New abutments and repair of bridge in Corduroy Rd., Oregon Township; 3 culverts—one on County Rd. No. 332, Springfield Township; one on Monoclova stone road., Monoclova Township, and one on Road No. 63, (Creek Rd.), Springfield Township; repair to abutments and bridge on Bway. over Mill Race, Naumee; new floor for bridge on Road No. 86, Adams Township; new abutments and bridge on Raab Rd. No. 165, Spencer Township; new abutments and floor for bridge on Angling Rd., Washington Township; new south abutment to bridge on Kingsbury St. over Miami and Erie Canal, Maumee Village. Chas. J. Sanzenbacher, Co. Aud.

Warren, O. — About $18,000 bridge bonds have been sold by County Commissioners.

Jackson, Mich.—C. E. Chappell, City Engr., writes no contract was let on bids opened Apr. 6 for constructing steel or concrete bridge over Grand River at Mechanic St. New bids will be received.

★**Illinois.** — Contract for constructing County Line Bridge, Empire and Rutledge Townships, McLean and De Witt Counties, awarded Apr. 11 by State Highway Dept., Springfield, to Rock River Bridge Co., Oregon, Ill., at $3,999.

Green Bay, Wis.—Citizens voted Apr. 6 to construct bridge over East River at Main St., from plans of Strauss Bascule Bridge Co., of Chicago, Ill. Aug. Brauns, City Engr.

Racine, Wis.—Lowest bid opened Apr. 9 for building culverts on Corliss Road submitted by C. P. Morran, of Waukegan, Ill., at $10,100. Jos. J. Patrick, County Clk.

Sheboygan, Wis.—Plans for a viaduct over the C. & N. W. Ry. tracks, several spans, totaling 509 ft., have been presented to Common Council; estimated cost $40,000. C. U. Boley, City Engr.

Ft. Dodge, Ia.—County Auditor will receive bids for bridges; estimated cost $27,600.

LeMars, Ia.—Bids reported desired until Apr. 20 by J. H. Hayes, Co. Aud., for constructing 3 steel truss bridges, an I-beam bridge, 5 concrete bridges and a concrete girder bridge; also 34 concrete culverts.

Marshalltown, Ia. — Bids desired by County Bd. Supervisors until Apr. 26 to construct 26 bridges and culverts, from plans of W. W. Moorhouse, Co. Engr.; total cost about $19,521.

Oskaloosa, Ia. — Comrs. of Mahasha County at Oskaloosa are about to let contract for a concrete bridge, to cost $25,000.

Austin, Minn.—Bids reported desired until Apr. 29 by O. J. Simmons, Co. Aud., for constructing 14 reinforced concrete bridges. A. C. White, Engr., Austin.

Bemidji, Minn.—See "Paving and Roads."

Moorhed, Minn.—Bids desired Apr. 27 by A. O. Houglum, Co. Aud., for building state bridge No. 1633, in Town of Glyndon, superstructure, one 100-ft. P. C. truss span and two 30-ft. beam spans, reinforced concrete floor; also state bridge No. 1657, Town of Highland Grove, superstructure, one 60-ft. span, 18-ft. roadway and reinforced concrete floor.

Red Wing, Minn.—Bids reported desired until Apr. 21 by C. H. Meyer, Co. Aud., for constructing State bridges, including Nos. 1284, 30 ft. beam span; 1324, 90 ft. steel truss span; 1665, 30 ft. reinforced concrete slab span; 1673, 15 ft. span; 1674, 30 ft. beam span; 1679, two 30 ft. beam spans; 1708, two 30 ft. beam spans; 1713, 20 ft. beam span; 1143, 70 ft. steel truss span; all reinforced concrete abutments except the last.

Galveston, Tex.—It is proposed to construct a bridge over Clear River, jointly by Galveston and Harris Counties, with pile approaches and a 55-ft. draw or lift bridge for boats. Probable cost, $12,000 Money not yet appropriated.

Seabrooke, Tex.—Plans and specifications are being considered by W. V. Burnell, County Engr., Houston, for constructing steel rolling lift bridge over Clear Creek.

Acme, N. Mex.—Construction of wagon bridge over Pecos River near Acme is reported contemplated by Bd. County Comrs. at Roswell; cost about $12,000.

Goshen, Wash.—See "Railroads."

Hoquiam, Wash.—Lowest bid opened by City Council Apr. 7 for repairs to 8th St. bridge submitted by McCrary & Willard, Spokane, at $7,567.

Lowell, Wash.—Bids reported desired until Apr. 19 at Everett by Co. Comrs. for constructing a steel vaiduct 90 ft. long near Lowell. Estimated cost $12,000. M. Weatherbee, Co. Aud.

Seattle, Wash.—Contract is about to be let by Bd. Pub. Wks. for constructing timber and iron drawbridge over Duwamish Waterway at 8th St.; cost about $45,000.

Tacoma, Wash.—Bids desired until May 1 by County Comrs. at Tacoma (J. W. Slayden, Chmn.) to furnish material and construct Bridge No. 1819½A across South Prairie Creek, Sec. 18 T. 19 N., R. 6 R., W. H. The bridge will comprise a frame trestle 145 ft. in length and a steel span 60 ft. in length, on concrete piers, with the necessary approach grading; roadway 16 ft. in width.

★**Pendleton, Ore.**—Contract for constructing bridges in Umatilla County awarded by County Court to Security Bridge Co., Spokane, Wash., at $15,508.

Portland, Ore.—Bids reported desired until Apr. 26 by Wm. N. Marshall, Secy. Columbia River Interstate Bridge Comn., Room 200, Multnomah County Court House, Portland, for constructing an embankment and incidental structures in connection with the Columbia River Interstate Bridge and approaches. Embankment comprises 560,000 cu. yds. Waddell & Harrington, Engrs., Kansas City, Mo.

Vancouver, B. C.—Plans for constructing concrete bridge over Sister's Creek on Marine Drive, approved by City Council.

PAVING AND ROADS.

Items Arranged Geographically

★**Boston, Mass.**—Contract for paving with wood block Commonwealth Ave. awarded to Clerk & Gore, at $60,014.

Contracts are about to be let by Transit Commission (B. L. Beal, Secy., 15 Beacon St.) for paving with wood block on Sumner and Boylston Sts.; estimated cost, $100,000.

★The Mayor April 5 approved award of contract to Central Constr. Co., 6 Beacon St., for repairing asphalt and bitulithic pavement with residual asphalt, at $29,750, and on April 6 approved awarded to Jas. Doherty for Hassam block pavt., on Braintree St., Brighton, at $15,085.

Fitchburg, Mass.—About $52,000 is to be spent for paving streets with macadam.

Massachusetts.—Bids desired until Apr. 20 by Massachusetts State Highway Comn. (F. I. Bieler, Secy.), 15 Ashburton Pl., Boston, for constructing following state highways:

Town of Amherst-Hadley, tar macadam, 11,000 ft.
Bernardston, oil, 15,300 ft.
Greenfield, asphalt and oil, 15,700.
Northbridge, concrete, 4400 ft.
Raynham, tar, 8000 ft.
South Hadley, asphalt and tar, 9600 ft.

★*Items marked thus give the names of parties awarded contracts.*

Massachusetts.—Bids were opened Apr. 6 by Massachusetts Highway Comn., 15 Ashburton Pl., Boston (F. I. Bieler, Secy.), for following state highways:

Duxbury, oil and tar, macadam, 10,200 ft. long. Lowest bidder, E. J. Rourke, Abingdon, $11,920. (Not yet awarded.)

★Grafton, tar macadam, 3800 ft., awarded to Torchia & Bruni, of Chelsea, at $7,748.

★Gloucester, oil gravel and macadam, 5208 ft., awarded to Perini Constr. Co., Ashland, at $16,149. Next 3 lowest bids: A. McDonough, Swampscott, $16,640; R. F. Hudson, Melrose, $16,660; J. J. McCarthy Co., Boston, $16,949.

Following are bids opened Apr. 13 by Massachusetts Highway Comn.:

Ashby, 10,500 ft. Three lowest bids: Peter Bompiani, Quincy, $9,825; Alco Contr. Co., 178 North St., Boston, $10,180; David H. Damon, Ashby, $10,845.

★Gardner, 3800 ft., awarded to Richmond F. Hudson, Melrose, at $6,506.

Springfield, Mass. — Bd. Supervisors voted to pave with granite and wood block Liberty St.; cost about $15,000.

Connecticut—Bids desired until Apr. 19 by C. J. Bennett, State Highway Comr., Hartford, for sections of state road work in Hampton, East Lyme, Wethersfield and Rocky Hill; also for about 11,080 lin. ft. standard wood guard railings in various towns, advertised in Engineering Record.

★**Connecticut.** — Contracts have been awarded by State Highway Comr., Charles J. Bennett, Hartford, on bids opened Mar. 22:

★Columbia: A section about 9964 ft. long on Columbia Green Rd., to The R. G. Miller Contr. Co., at $15,334. (Native stone macadam.)

★South Windsor: A section 8310 ft. long on Deming St., to A. Brazos & Sons, Middletown, Conn., at $13,557. (Bituminous native stone macadam.)

★Bloomfield: A section of native stone macadam on Simsbury Rd., 6610 ft. long, to R. G. Miller Contr. Co., Hartford, at approximately $8,000.

★Bloomfield: A section of macadam on Blue Hills Rd., 6879 ft. long, to The B. D. Pierce Jr. Co., Bridgeport, at $8,974.

★Woodbury: A reinforced concrete bridge and gravel road over Nonewaug River on Woodbury-Watertown Rd., to John DeMichiel & Bro., Torrington, Conn., at $3,081.

★Woodbury: A reinforced concrete bridge and gravel road over South Brook on Woodbury-Southbury Rd., to John DeMichiel & Bro., Torrington, at $1,547.

Albany, N. Y.—Bids desired Apr. 19 by Bd. Contract and Supply (Isidore Waschman, Secy. Bd.) for grading and paving carriageway with asphaltic concrete on concrete foundation Brookline Ave., including concrete sidewalks and curbing; also vitr. shale blocks on 2d St. and sewer laterals in McCarty Ave.

Bids desired Apr. 29 by State Highway Commission (Edwin Duffey, State Highway Comr.), 55 Lancaster St., for furnishing stone for various towns, advertised in Engineering Record.

The Assembly passed bill providing for appropriation of $90,000 for constructing boulevard and viaduct over Normanskill to connect Delaware Ave. Rd. with Bethlehem stone road.

★Contracts awarded by Bd. of Contract and Supply Apr. 12 for street improvements as follows: Repaving Eagle St. from Elk St. to Myrtle Ave., Patk. W. Mulderry, $52,387; repaving James St. from State St. to Columbia St., to Kenny & Dumary, $9,107; improving Osborne St., to Walsh & Keegan, $6,810; and to Gleason & Davitt, for paving with asphalt, etc., Hampton, 2d, Spring, Barrows and 2d Ave. S., asphalt and concrete, and Beekman St., a total of $23,031.

Bids desired May 5 by State Comn. Highways (Edwin Duffey, Comr.), Albany, for improving highways, advertised in Engineering Record.

Brooklyn, N. Y.—Bids desired until Apr. 21 by L. H. Pounds, Boro. Pres., for paving with preliminary asphalt pavement portions of Argyle Rd., Canarsie Lane, E. 10th, E. 12th, 38th Sts. and 15th Ave., in all 11,015 sq. yds. pavt., etc.; also laying sidewalks E. 10th and 61st Sts., in all 9,460 sq. ft. cement sidewalk, etc.

Bids desired until Apr. 22 by Park Bd., New York (Cabot Ward, Pres.), for furnishing and delivering coarse and fine gravel trap rock and trap rock screenings and bay sand and trap rock screenings to parkways, Boro. Brooklyn.

Buffalo, N. Y.—Contract is about to be let by Comr. Pub. Works Francis G. Ward for repaving Bailey Ave., Clinton, East and West Bennett Sts.

Bids desired until Apr. 20 by Dept. Pub. Wks. (F. G. Ward, Comr.) for paving portions of Admiral Rd., Deseronto, Wallace, Lovering, Virgil Aves., Geary and Tupper Sts.

Lestershire, N. Y.—Bids desired until Apr. 19 by Bd. Village Trus. (Wm. C. Lewis, Clk.) for a brick pavement on Baldwin St., from Main St. to Floral Ave. Bids also desired for $17,500 bonds issued for purpose of paying Village's share of expense of paving Baldwin St.

Long Island City, L. I., N. Y.—Following are bids opened Apr. 7 by President, Queens Boro., for paving:

Regulating, grading, curbing and laying sidewalks and crosswalks, in Anable St., from Van Dam St. to New Calvary Cemetery, 1st and 2d Wards. Lowest bidder: Chas. A. Meyers Contr. Co., Brooklyn, as follows: 7,600 cu. yds. earth excav., 38 cts.; 100 cu. yds. rock excav., $2; 20,000 cu. yds. embankment (in excess of excav.), 31 cts.; 1,100 lin. ft. new bluestone curb, 75 cts.; 7,800 lin. ft. cement curb with steel nosing, 1 yr. maintenance, 50 cts.; 4.500 sq. ft. new flag, 25 cts.; 33,000 sq. ft. cement sidewalk, 1 yr. maintenance, 12½ cts.; 5,300 sq. ft. new crosswalks, 50 cts.; 10 cu. yds. concrete, $4; 1,000 sq. yds. stone gutters, 75 cts.; 100 lin. ft. 12-in. vitr. pipe, $1; total, $22,803. Next 3 lowest bids: Degnon Contr. Co., 30 E. 42d St., New York, $24,350; Gifford Constr. Co., Long Island City, $25,170; Clancy & Nuhn Contr. Co., Long Island City, $25,236.

Regulating and repaving with improved granite blocks, bituminous grouted joints on concrete foundation, College Point causeway, 3d Ward. Lowest bidder: Queens Plaza Contr. Co., Long Island City, as follows: 1,100 cu. yds. concrete, outside railroad area, $5; 6,300 sq. yds. improved granite block pavt., outside railroad area, including sand bed, bituminous grouted joints, $2.95; 200 cu. yds. concrete, 1 ct.; 1,400 sq. yds. improved granite block pavt., including sand bed and bituminous grouted joints, and no maintenance, 1 ct.; 50 sq. yds. stone gutters, $1; total, $24,151. Next 3 lowest bids: H. J. Mullen Contr. Co., Long Island City, $24,569; Chas. A. Meyers Contr. Co., $24,576; D. M. O'Connell, Long Island City, $24,750.

Regulating and paving with granite blocks on 6-in. concrete foundation Thomson Ave., from Viaduct to Diagonal St., 1st Ward. Lowest bidder: W. J. Scanlon Co., 1 Union Sq., New York, 1,700 cu. yds. concrete, outside railroad franchise area, 1 ct.; 9,700 sq. yds. granite block pavt., outside railroad franchise area, including sand bed and cement grouted joints, 1 yr. maintenance, $3.13; total, $30,378. Next 3 lowest bids: H. J. Mullen Contr. Co., $30,766; Chas. A. Meyers Contr. Co., $30,778; Clancy & Nuhn Contr. Co., $30,960.

New Brighton, S. I., N. Y.—Bids desired until Apr. 20 by Chas. J. McCormack, Boro. Pres., for 35 sq. yds. wood block pavt., 2,175 sq. yds. bituminous macadam pavt., 340 sq. yds. vitr. brick pavt, etc. Total security, $2,560.

New York, N. Y.—Following are unofficial totals of 3 lowest bids opened Apr. 13 by Bd. Water Supply, Municipal Bldg., New York, for Contract 152—surfacing with vitr. brick blocks and macadam about 5 miles of highways and constructing about 8 miles of guard walls at the Ashokan Reservoir, in towns of Olive, Marbletown and Hurley, Ulster County: Winston & Co., Brown Station, New York, $189,150; Harris-Rose Constr. Co., New York, $200,550; Nordone & Patrino and J. Garofani & Son, Mt. Vernon, $215,305.

★**Oswego, N. Y.**—Contract for paving awarded by Dept. Pub. Wks. (Chas. W. Lindsey, Comn.) on Apr. 9 as follows: To J. A. Calkin, Oswego, for 4000 sq. yd. brick at $13,458, and to Saml. Bonn, Syracuse, 8,500 sq. yd. resurfacing old sheet asphalt with vitr. brick, at $18,409.

★**Rochester, N. Y.**—Contract for asphalt repairs to streets during 1915 was awarded to Warren Bros. Co., Rochester, at $55,000.

Victor, N. Y.—W. F. Keating, Village Clk., writes it is proposed to pave Main St. with brick and macadam on concrete foundation concrete and brick curb; cost about $10,000.

Warsaw, N. Y.—Bd. Supervisors Wyoming County voted to construct Bennington-Attica-Attica Center Rd., cost $98,000.

★**Bedminster, N. J.**—Contract for constructing 3 mile road from Large Cross Roads to Hunterdon County Line awarded to John La Compt, Lakewood, at $53,714.

Belleville, N. J.—Bids desired until Apr. 27 by Robt. G. Minion, Town Clk., for furnishing and applying road oil for laying dust on roads and avenues for year ending Dec. 31, 1915.

Cape May, N. J.—Bids desired until Apr. 21 by Com. on Streets and Highways (M. Hughes, Chmn.) for 5325 sq. yds. sheet asphalt on Washington St., advertised in Engineering Record. L. E. Miller, Jr., City Engr.

Elizabeth, N. J.—The following contracts for paving will be let about June 1, 1915: Broad St. with granite block on 6-in. concrete foundation, 20,560 sq. yds., $78,590, and Elizabeth Ave. with granite block, 81,828 sq. yds., cost $231,480. Thos. E. Collins, City Engr.

Haddonfield, N. J. — Borough Comrs. voted to issue $17,000 bonds for street improvements.

Jersey City, N. J.—Bids reported desired until Apr. 22 by Bd. City Comrs. for improving portions of Chestnut and Summit Aves., Elizabeth and Grove Sts.

Moorestown, N. J.—Road from here to Masonville will be rebuilt at cost of about $14,000.

Newark, N. J.—Bids desired until Apr. 19 by Fred. A. Reimer, Co. Engr., Newark, for furnishing and delivering broken stone on numerous county roads; also same time and place for furnishing and laying liquid asphalt on 80,000 sq. yds. of highways in the county.

Paterson, N. J.—Bids desired until Apr. 28 by Bd. Chosen Freeholders (Geo. W. Botbyl, Clk.), Paterson, for improving portions of Paterson-Hamburgh Turnpike, Sect. 1, with bituminous concrete and Sect. 2 with concrete, and Midvale and Greenwood Lake Road with waterbound macadam, advertised in Engineering Record. Fred. G. Sloan, Chmn. Road Com.

★**Toms River, N. J.**—Contract for constructing gravel road from Wrights Bridge awarded by Ocean County Bd. Freeholders to Cranmer & Parker, West Creek, at $12,052.

★**Bloomsburg, Pa.**—Contract awarded by Co. Comrs. for a concrete slab floor on Mifflinville River Bridge over Susquehanna River, to Horseheads Constr. Co., Horseheads, at $8,947. Next 3 lowest bids: Roger Bros., Albion, $9,380; Ferris Eng. Co., Pittsburgh, Pa., $9,757; Fred Sanders, Williamsport, $9,875.

Darby, Pa.—About $30,000 paving bonds have been sold by City Council.

★**Erie, Pa.** — Contracts for paving awarded by City Council as follows: Cranberry St. and Washington Pl., to J. & M. Doyle, at $15,700, and for 9th and 10th Sts., to John McCormick, at $20,500.

Harrisburg, Pa.—Lowest bid opened Apr. 7 for sheet asphalt plant was submitted by Barber Asphalt Co., Buffalo, N. Y., at $7,495.

Oil City, Pa.—Bids desired until May 3 by B. B. Weber, City Engr., for paving parts of 4 streets, about 8400 sq. yds. of brick pavt. and 1600 sq. yds. either brick or wood block.

Pittsburgh, Pa.—Bids desired Apr. 23 by R. J. Cunningham, Co. Compt., for creosoted wood block floors on numerous county bridges.

Bids desired until Apr. 20 by Robt. Swan, Dir. Dept. Pub. Wks., for regrading, repaving, recurbing and improvinng Penn Ave., Duquesne Way, and other streets and highways affected by the improvement; grading, curbing and paving with standard sheet asphalt Hamilton Ave. Constructing 15-in. terra cotta pipe sewers with 9-in. laterals in portions of Hamilton Ave.

Reading, Pa.—City contemplates paving with brick 10,000 sq. yds.; asphalt 15,000 sq. yds.; granite block 1600 sq. yds.; concrete 900 sq. yds.; bituminous hot mixture 8900 sq. yds., and wood block 5900 sq. yds.

Reading, Pa.—Bids desired until Apr. 20 by City Clerk for paving, including wood block, bituminous macadam, vitr. block, granite block and sheet asphalt, advertised in Engineering Record. Jacob H. McConnell, Supt. Dept. Streets & Pub. Improv.; Edmund B. Ulrich, City Engr.

Rousville, Pa.—Bids desired May 1 by G. H. Brush, Boro. Clk., for paving Main St. with brick, 9200 sq. yds. on concrete foundation, to include 11,200 ft. concrete curb; cost $30,000. Engineer, E. H. Price, Oil City.

Sharon Hill, Pa.—See "Sewerage and Sewage Disposal."

★**Sharon, Pa.**—Contract awarded Apr. 6 for furnishing sufficient asphalt (Texico No. 39) to pour 20,000 yds. brick pavement (about 300 tons) to Roberts & White, Sharon, Agents for John Baker, Jr., of New York, at $15.10 per ton. Claude B. Lartz, Boro. Secy.

Cumberland, Md.—About $150,000 paving bonds have been sold by City Council.

★Contract for paving about 57,000 sq. yd. brick pavement awarded by City Commission Apr. 5 to Louis Lawson, Norfolk, Va., at $130,362.

★**Lexington, Va.**—Contract awarded Apr. 5 for constructing 2½ miles macadam roads to S. B. Mosby, of Bedford, Va. A. Shields, Co. Clk.

Parkersburg, W. Va.—About $40,000 is to be spent for constructing concrete roads on Staunton and Northwestern Pikes by Woods County.

★**Marshall, N. C.**—Contract awarded by Madison County Highway Comn. for grading 6.9 miles of road to Berry Fortune Constr. Co., Augusta, Ga., at following bid: 73,550 cu. yds. excav., 39½ cts.; 350 cu. yds. concrete for small culverts, $8.50; 2400 lbs. plain twisted steel bars, 2½ cts.; 650 ft. 12-in. tile, haul and lay, 20 cts.; 570 ft. 15-in., 22 cts.; 300 ft. 18-in., 30 cts.; 150 ft. 24-in., 41 cts.; 80 cu. yds. c. r. masonry headwalls, $4.90; 150 cu. yds. riprap (bids opened Mar. 16). J. B. Clingman, County Road Engr.

Pittsboro, N. C.—Bids reported desired until May 3 by County Comrs. (C. D. Moore, Chmn.) for $70,000 bonds, to be used for constructing roads in Center and Haw River townships.

Anderson, S. C.—About $83,000 paving bonds have been sold by city.

★**South Carolina.**—Contract awarded by U. S. Highway Dept., Aiken, to Dyches & Halley, for paving with sand clay North Section of S. C. Post Road, 11½ miles in length, at $13,754.

Atlanta, Ga.—County Comn. voted to pave with bitulithic W. Georgia Ave., at cost of $100,000.

Bradentown, Fla.—Citizens of Manatee County voted $250,000 bonds for road and bridge work.

★**Alabama.** — Contracts have been awarded as follows by State Highway Dept., Montgomery, for State Aid work:

★Calham County, on Apr. 7 to Goodrich Constr. Co., Anniston, for grading, draining and surfacing with chert, 2 miles of Piedmont and Jacksonville Rd., at $4,616.

★DeKalb County, on Apr. 9 to Newell Bros., Birmingham, for grading, draining and surfacing with chert about 2½ miles of Collinsville and Dawson Gap Rd., at $6,100.

Oneonta Ala.—City Council voted to gravel 2d and 3d Sts. construct concrete sidewalks on 1st, 2d and 3d Aves.

Vernon, Ala.—About $150,000 bonds for roads in Lamar County were sold. County seat, Vernon.

Alexandria, La.—About $100,000 road bonds have been sold. Contract about to be let by Police Jury for constructing 28 miles gravel road.

Lake Charles, La.—Bids reported desired until May 4 by Police Jury for constructing highways 6, 8, 14 and 16. Fred Shutts, Parish Engr.

Plaquemine, La.—About $75,000 is to be spent by Police Jury for constructing gravel roads.

Jackson, Miss.—Bids desired until Apr. 20 by S. S. Carothers, City Aud. and Purchasing Agt., for 50,000 gals. liquid asphalt road oil f. o. b. Jackson.

Laurel, Miss.—Council considering issue of $20,000 bonds for street improvements.

Starkville, Miss.—Bids desired until May 1 by Chancery Clerk, at Starkville, for constructing highways in First Supervisors Dist., advertised in Engineering Record. E. C. Thomas, Engr. Comn., Nash Bldg., Starkville.

Bristol, Tenn.—Citizens voted $100,000 bonds for constructing Bristol-Lexington highway.

Chattanooga, Tenn.—Plans are being prepared by County Engineer for constructing Wauhatchie Pike; cost about $125,000.

Cleveland, Tenn.—See "Sewerage and Sewage Disposal."

Nashville, Tenn.—Bids desired until Apr. 29 by J. W. Dashiell, Secy. Bd. Comrs., for paving with wood block, bitulithic, granite block, concrete and bitustone pavement on various streets, advertised in Engineering Record. W. W. Southgate, City Engr.

Park City, Tenn.—See "Sewerage and Sewage Disposal."

Carlisle, Ky.—John S. Sugg, Co. Clk., writes citizens voted Mar. 27 to issue bonds for county roads work, and bids for bonds will be received May 15. About $60,000 to be spent this year.
ing jobs; cost aggregating $193,000.

Mt. Vernon, Ky.—Citizens Rock Castle County voted $100,000 bonds for road improvements.

Whitesburg, Ky.—Construction of road between Whitesburg and the coal fields is contemplated by Letcher Fiscal Court; cost $25,999.

Akron, O.—About $105,325 paving bonds have been sold by city.

Alliance, O.—See "Sewerage and Sewage Disposal."

★**Barberton, O.**—Contract for paving Hopocan Ave. awarded by Bd. Pub. Service on bids opened Mar. 22, to Paul & Henry, of Barberton, as follows: 2343 cu. yds. excav., 25 cts.; 7552 sq. yds. pav block, 73 to 76 cts. per sq. yd.; 7552 sq. yds. concrete base 1:3:5 6-in., 50 cts.; 7552 sq. yds. sand cushion, 2-in., 5 cts.; 7552 sq. yds. lay and roll blocks, 12 cts.; 16 lin. ft. concrete curb 6 x 22 in., 30 cts.; 322 lin. ft. concrete curb circles, 60 cts.; 2952 lin. ft. concrete curb and gutter, 44 cts.; 360 lin. ft. rough curb headers, 25 cts.; 322 lin. ft. galv. steel corner bars, 21 cts.; 3290 lin. ft. elastic expansion joint, 10 cts.; 5 manhole covers, reset, ea., $1; 7552 sq. yds. cement fill, 10 cts.; total $13,566. Next 3 lowest bids: McAlonan Bros., Akron, $14,789; Wildes & Davidson, Akron, $14,899; McCoy & Heyl, Barberton, $15,514.

Bellefontaine, O.—Lowest bid opened Mar. 29 for macadamizing Anderson Bell Pike, Bloomfield and Pleasant Townships, submitted by M. B. Koffroth, Richmond, at $8,600. J. S. Van Hise, Co. Aud.

★**Cincinnati, O.**—Contracts have been awarded by Bd. Pub. Service for paving as follows: Mar. 26, improving right of way from 3d St. opposite Celestial St., to D. P. Foley, Cincinnati, at $5,162, and Apr. 1, for paving Goodman St. with bitulithic, to Kirchner Constr. Co., Cincinnati, at $19,539.

Cleveland, O.—Lowest bid for paving Woodworth Ave. N. E., from St. Clair Ave. N. E. to Coit Rd. N. E., opened Apr. 7, submitted by Baldwin Bros., as follows: 12,600 cu. yds. excav. or embankment, 30 cts.; 91,500 sq. ft. 4-in. concrete foundation, laid, 6⅔ cts.; or 91,500 sq. ft. 4-in. brick pavt., laid, 11⅔ cts.; 200 sq. ft. brick pavt., relaid, 5 cts.; 200 lin. ft. 5-in. Medina curb, set, 80 cts.; 6600 lin. ft. 5-in. Berea or Amherst curb, 41 cts.; 100 lin. ft. curbstone reset, 8 cts.; 22 catchbasins, ea., $40; 1 catchbasin rebuilt, $2; 1 extra catchbasin cover set, $8;

★Items marked thus give the names of parties awarded contracts.

2 old catchbasin covers reset, $1; 400 lin. ft. 12-in. catchbasin pipe, 60 cts.; 1 inlet basin built, $10; 2 old catchbasins cleaned, $2; 1 small tree removed, $5; 1 large tree removed, $20; 700 sq. ft. new flag furnished and laid, 16 cts.; 500 sq. ft. flag relaid, 3 cts.; 20 lin. ft. old 12-in. C. B. pipe relaid, 5 cts.; 91,500 sq. ft. 6-in. concrete foundation laid, 8½ cts.; total, (a) with 4-in. concrete, $24,585, or (b) with 6-in. concrete, $26,415. Next 3 lowest bids: Gould & Maybach, (a) $24,761, (b) $26,591; Enterprise Paving & Constr. Co., (a) $26,761, (b) $29,049; Bentley Bros., (a) $27,551, (b) $29,838.

Bids desired until Apr. 28 by County Comrs. (E. G. Krause, Clk.), for improving Berea Rd. from W. 117th St. to W. Madison Rd.

Findlay, O.—Jos. Page, City Clk., writes bids will be received about May 1 for paving Cherry, E. Sandusky, E. Lincoln, Main and other streets with brick, Westrumite, asphaltic concrete, or other standard material, and concrete base, with sandstone curb; cost $75,000 to $90,000.

Fremont, O.—Bids reported desired until Apr. 20 by Finance Com. of Council for $15,000 street improvement bonds.

Geneva, O.—Bids reported desired until Apr. 19 by County Comrs. to construct 8½ miles brick highway.

Groton, O. — Citizens voted $25,000 bonds for road improvements.

Jeromesville, O.—Bids desired until May 1 by M. L. Hosler, Clk. Village Council, to furnish material and improve Main St. by grading, curbing and paving with brick block or other suitable material and constructing necessary drainage.

Kinsman, O.—Citizens voted $90,000 bonds for paving.

Lisbon, O.—Citizens voted $50,000 road improvement bonds for Center Township.

Middletown, O.—Second and 6th Sts, paving bonds, in all $25,000, have been sold by city.

McCutchenville, O.—Bids reported desired until Apr. 28 by Trustees Seneca Township (W. S. DeTray, Clk.) for $20,000 road improvement bonds.

★**Mt. Gilead, O.**—Contract awarded Apr. 9 for macadamizing 3½ miles Benton Rd., to Gledhill & Rinehart, of Galion, at $27,513. Other bids: W. H. Miller, Cardington, $27,538, and Warner & Kennedy, Medina, $29,384. C. A. Higgins, Co. Aud.

Mingo Junction, O.—Bids desired Apr. 26 by G. E. Fithers, Village Clk., for 4700 sq. yd. paving, 4500 ft. curbing, 4500 cu. yd. retaining wall, advertised in Engineering Record.

Springfield, O.—Bids reported desired until 7 P. M., Apr. 19, by W. H. Mahoney, Clk. City Comn., for $58,233 bonds, the proceeds of which shall be used for improving various streets.

Toledo, O.—Bids desired until May 14 by Chas. J. Sanzenbacher, Co. Aud., for grading and macadamizing with a bituminous binder Washington Township Stone and Gravel Road No. 65, a distance of 1.6 miles, in Washington Township.

Troy, O.—It is proposed to pave 14,000 sq. yd. asphalt concrete on 6-in. concrete base, estimated at $1.45 per sq yd.; 22,200 sq. yd. brick paving, 6-in. concrete base, $1.74 to $1.85; 7500 sq. yd. bituminous macadam, 6-in. concrete base, $1.24 to $1.35 per sq. yd. M. A. Gantz, City Engr.

Verona, O.—Bids reported until Apr. 26 by V. J. Shilt, Village Clk., for 6324 sq. yds. macadam with surface treatment.

Urbana, O.—Bids reported desired until Apr. 29 by Director Public Service for paving S. Main and Miami Sts. a distance of about 1.3 miles.

Upper Sandusky, O.—About $23,000 paving bonds have been sold by County Comrs.

Cannelton, Ind.—Bids desired until Apr. 29 by Fred. Berger, City Clk., for 120,000 sq. ft. concrete walks. Hermann & Lemme Eng. Co., Engineers, Jasper, Ind.

Columbia City, Ind.—Bids reported desired until Apr. 26 by E. E. Erdmann, City Clk., for paving alleys about 9000 sq. yds. brick or concrete.

Goshen, Ind.—Contract is about to be let by County Comrs. for constructing 5 miles brick road on Ft. Wayne Rd.; cost about $72,243.

★**Indianapolis, Ind.**—Contract for paving with asphalt Northwestern Ave. awarded by Bd. Works to American Constr. Co., St. Louis, Mo., at $15,031.

Jeffersonville, Ind.—All bids opened by County Comrs. Apr. 5 for constructing Bailee L. Burtt Rd. rejected. According to reports new bids will be received; probable cost $20,000.

★**New Albany, Ind.**—Contracts for constructing roads awarded by Bd. County Comrs. as follows: Budd Rd. to Games & Jones, at $16,198, and Payne-Koehler Rd., to Robt. Grayson, at $10,800.

Plymouth, Ind.—Bids reported desired until May 7 by Co. Comrs. for constructing 20½ miles of gravel roads, estimated to cost $61,557. Arthur W. Thomson, Co. Survy.

Richmond, Ind.—Fred. Charles, City Engr., writes bids desired by City Clerk until 10 A. M., Apr. 22, for paving 5th, North A and other streets with brick, concrete, wood block and asphalt.

Coldwater, Mich.—Bids reported desired until Apr. 23 by County Comrs. for constructing gravel roads.

Monroe, Mich.—Citizens voted Apr. 6 to bond the city for paving purposes.

La Salle and Erie Township voted Apr. 6 to issue $15,000 and $20,000 bonds respectively for improvement of a link in Detroit-Toledo highway.

Saginaw, Mich.—Bids reported desired until Apr. 20 by City Clerk for paving several streets with creosote wood blocks, sheet asphalt, etc.

Aurora, Ill. — Bd. Supervs. Kendall County voted to construct one mile of county road with concrete.

Bloomington, Ill.—Council has passed ordinance providing for a brick pavement on Franklin Ave. and Beecher St.; estimated cost $16,370.

Edgar, Ill.—Bids reported desired until Apr. 23 by Harvey Brummett, Comr. Highways, for 13,200 ft. gravel road and new culverts. Karl J. Barr, Co. Supt. Highways, Paris.

★**Edwardsville, Ill.**—Contract for rebuilding 6600 ft. concrete road on Hillsboro Rd. awarded by Highway Comrs. to H. H. Hall Constr. Co., East St. Louis, at $17,980.

Georgetown, Ill.—Citizens voted to issue $80,000 bonds for road improvements. About 4 miles concrete pavements is included.

★**Leroy, Ill.**—Contract for paving in Leroy awarded to Curdie & Wolfe, Alton, at $67,750.

★**Paris, Ill.**—Contract awarded Apr. 9 for constructing Nevins and Sanford Rds. to Ralph A. Baum, of Paris, at $7,815. K. J. Barr, Supt. Highways.

Sidney, Ill.—Only bid opened by city for paving Sidney St. was submitted by J. A. Sturdyvin, Rantoul, at $9,500.

Janesville, Wis.—Bids desired about May 1 for paving S. Bluff St. and other streets, about 3911 sq. yds. asphalt macadam. C. V. Kerch, City Engr.

★**Marinette, Wis.** — Contract awarded Apr. 7 for 11,000 sq. yds. concrete pavement to Murphy Constr. Co., of Manitowoc, at $16,342. Next 2 lowest bidders. Corlin Bros., Marinette, $16,370; Delta Constr. Co., Escanaba, Mich., $16,520. A. L. Hillis, City Engr.

★**Milwaukee, Wis.**—Contract for paving with sandstone Menominee St. and with creosoted block Lee St. awarded by city to Hase & Weiher at $11,663 and $7,793, respectively.

West Bend, Wis.—Bids reported desired until Apr. 22 by Bd. Pub. Wks. (Jos. M. O'Meara, Chmn.) for grading, constructing Portland cement concrete pavement and concrete curb and gutter on Main St.

Wisconsin.—Plans and specifications have been prepared for the following work, under State aid laws (A. R. Hirst, State Highway Engr., Madison). Bids will be called for on or before May 1.

Columbia County, Village of Kilbourn, grading and paving Bway. and Superior St.; grading earth 1855 cu. yds.; grading rock 300 cu. yds.; concrete paving 5033 sq. yds., reinforced 1 course; macadam paving 2646 sq. yds., waterbound; curb and gutter 5180 lin. ft.; vitr. pipe (18-in.) 150 lin. ft.; concrete 27 cu. yds. for culverts (reinforced); inlets and catchbasins, 16 to be furnished; cost about $11,000. Address Clinton Quinn, County Highway Comr., Pardeeville, Wis., or Village Pres. at Kilbourn.

★**Boone, Ia.**—Contract awarded Mar. 24 for paving 43 blocks with asphaltic concrete, approximately 49,000 sq. yds., to Des Moines Asphalt Paving Co., of Des Moines, at $1.47½ per sq. yd. Otto Hile, City Clk.

★**Clarinda, Ia.**—Contract awarded Apr. 8 for paving Water St. with concrete, 12,700 yds. to J. S. M. S. Laughlin & Sons, of Red Oak, at $1.37 per sq. yd.

Grinnell, Ia.—Bids desired by A. C. Harriman, City Clk., until June 3 for brick, sheet asphalt or bitulithic paving, 83,000 sq. yds. and 64,000 ft. cement curb. J. F. Mangolt, City Engr.; Chas. P. Chase, of Clinton, Consulting Engr.

Ida Grove, Ia.—City Council voted to pave about 22 blocks.

★**Keokuk, Ia.**—Contract awarded Mar. 23 to Cameron, Joyce Co. for 9130 sq. yds. concrete pavement and 1½ miles curb. J. F. Winters, City Engr.

Bemidji, Minn.—Bids desired until Apr. 29 by J. L. George, Co. Aud., for clearing, grubbing, ditching, turnpiking, grading, hauling and installing culverts and surfacing State Rural Highways No. 62, 34.8 miles, and No. 9, Div. C, 7.07 miles; also separately for furnishing 174 metal culverts; also constructing State bridges Nos. 1730 to 1734, inclusive.

St. Paul, Minn.—Bids reported desired until Apr. 19 by Aug. Hohenstein, Purchasing Agent, for 32,979 sq. yds. 3½-in. creosoted yellow pine blocks, 6489 sq. yds. vitr. brick blocks, 3425 lin. ft. sandstone curbing, straight; 6167 bbls. Portland cement, 4643 cu. yds. crushed stone or gravel, etc.

Hutchinson, Kan.—New bids desired until May 3 by Geo. W. Lee, Co. Clk., for improving 5 miles road in North Hayes Township, known as Raymond-Sylvia Rd.

Newton, Kan.—Bids reported desired until May 1 by A. J. Duff, Mayor, for constructing 30,000 sq. yds. paving on various streets. F. E. Devlin, City Engr.

Neodesha, Kan.—Bids desired until Apr. 23 by J. J. Carroll, City Clk., for constructing 14,000 sq. yds. brick pavement with combination curb and gutter on various streets.

Salina, Kan.—Bids reported desired until May 1 by C. Banker, City Clk., for constructing 14 blocks asphaltic concrete and brick pavement.

Dunbar, Neb.—See "Waterworks."

Kansas City, Mo.—Bids desired until Apr. 20 by Bd. Pub. Wks., (Edw. F. Webster, Acting Secy.) for maintaining and repairing macadam pavement on portions of Concord Ave., Cherry, 54th, Main and a number of other streets; constructing Portland cement concrete pavement on 27th St. and vertical fibre vitr. brick block pavement on Roanoke Ave.

Weston, Mo.—Terrance Riley, City Clk., writes it is proposed to pave Spring, Short and other streets, in all about 8000 sq. yd., with Tarvia, at a cost of $8,000 to $10,000, from plans of Chas. E. McCrae, of Kansas City, Mo.

Little Rock, Ark.—Contract is about to be let for paving in Street Improvement Dist. No. 223, cost $15,000. Ford & MacCrea, Engrs.

★**Texarkana, Ark.**—Contract for constructing about 60 miles concrete and macadam roads radiating out of Texarkana and a bridge over Red River awarded to Lund & Hill, Little Rock, at total of $650,000.

Boerne, Tex.—Citizens voted $25,000 bonds for road improvements in Dist. No. 1, Kendall County.

★**Dallas, Tex.**—Contracts for paving awarded by City Comrs. as follows: Howell St., with Uvalde Rock asphalt, to Standard Engineering Co., 17 Battery Pl., New York City, at $1.98 per sq. yd., and Murray, Live Oak and San Jacinto St with bitulithic to Texas Bitulithic Co., Dallas, at $2.30 per sq. yd.

★**Ft. Worth, Tex.**—Contract for paving roads connecting with Mandfield, Azle and Haslet Rds. has been awarded by City Commission to Roach-Mannigan Paving Co., Memphis, Tenn., at about $35,000.

La Coste, Tex.—Citizens of Comrs. Precinct No. 2, Medina County, voted $40,000 bonds for road improvements.

Magnolia Park, Tex.—About $34,000 paving bonds have been sold by City Council.

★**Marshall, Tex.** — Contract awarded Apr. 9 for constructing 20 miles gravel and macadam highway to Smith Bros., of Crockett, at $41,915. Next 3 lowest bids: Roach Manigan Paving Co., Ft. Worth, $53,982; S. A. Gano, Vicksburg, Miss., $54,047; J. H. Haward & Sons, Ft. Worth, $55,632. N. P. Turner, Highway Engr.

★**San Antonio, Tex.**—Contract for paving with asphaltic concrete N. Hackleberry St. awarded by City Council to Colglazier Constr. Co. at $1.70 per sq. yd.

Victoria, Tex.—Citizens Calhoun County voted $60,000 bonds for completing road from Victoria County line to Port O'Connor.

Longmont, Colo.—Geo. H. Stonex, City Clk., writes bids desired the latter part of May for paving Main, 4th and other streets with concrete; cost about $14,000. R. E. Richardson, City Engr.

★**Cushing, Okla.** — Contract awarded Apr. 5 for construction of approximately 35,000 yds. of vertical fibre vitr. brick pavt., to Elliott & Vance, of Parsons, Kan. Benham Eng. Co., Oklahoma City, Okla., Consulting Engrs.

Astoria, Wash.—City Council voted to pave with bitulithic or bitulithic redress on concrete base streets at cost of $20,000.

★**Bellingham, Wash.**—Contract for constructing 5 miles concrete pavement on Guide Meridian Rd. awarded by County Comrs. to P. J. McHugh, Seattle, at $68,000.

★Contract for paving with asphalt Monroe St. awarded by City Council to Independent Asphalt Paving Co., Northern Bank Bldg., Seattle, at $17,037.

City Council considering paving with asphalt 2 miles on Silver Beach Rd.; cost $50,000.

Colfax, Wash.—Bids reported desired until about May 1 by Wm. R. Roy, State Highway Comr., Olympia, for constructing about 9 miles of highway between Colfax and Alkali Flat, Whitman County. Contract includes one 75-ft. and one 25-ft. concrete bridge.

Bids reported desired until May 17 by A. R. Metz, Co. Aud., for constructing permanent highway. Probable cost, $28,000.

Concrete, Wash.—City Council voted to pave Mill, Garden and Division Aves.

Ellensburg, Wash.—Bids reported desired until May 3 by County Comrs. for paving with brick, asphalt or Warrenite, the Dolarway Rd., 2½ miles. Moses M. Emerson, County Engr.

Elma, Wash.—Plans have been completed by J. D. Neville, County Engr., at Chehalis, for paving 2 miles roads in Elma; cost about $20,000.

Everett, Wash.—City Council voted to pave with asphalt Everett Ave. and Cedar St.

★Contract awarded Apr. 5 for constructing permanent Highway No. 12 to Reinseth Bros., of Arlington, at $8,340. A. B. Dean, Ch. Deputy County Engr.

Mt. Vernon, Wash.—Bids desired by W. V. Alexander, Co. Aud., until May 4 for a 2 course concrete pavement. Permanent Highway No. 2 A, near Sedro Woolley; cost $31,400. A. L. Strong, Co. Engr.

North Yakima, Wash.—W. M. Vance, Clk. Co. Comrs., writes following are 4 lowest bids opened Apr. 6 for highways No 6A and 14:

Highway No. 6A, grading and constructing 11,000 ft. macadam, 14 ft. wide, with earth shoulders 5 ft. wide: O. F. Leonard, Seattle, $13,900; A. H. Zane & Co., North Yakima, $14,275; Thos. Dingle North Yakima, $14,416; T. D. Bidwell, Portland, Ore., $15,251.

Highway 14 grading and construction of a gravel road 21,352 ft. long, 14 ft. wide with earth shoulders 5 ft. wide: Cascade Constr. Co., Seattle, $12,962; A. H. Zane & Co., North Yakima, $13,882; Fred McKivor & Co., North Yakima, $13,900; H. E. Mathieson, Sunnyside, $14,208.

Orillia, Wash.—Bids reported desired until Apr. 26 by Co. Comrs. for grading and graveling about 1 mile of road between Orillia and Renton Junction. Cost $12,000. N. M. Wardall, Co. Clk.

Port Orchard, Wash.—County Engineer has been directed to prepare plans for constructing highway between Colby and Harper; cost about $15,000.

Ritzville, Wash.—Lowest bid opened on Apr. 5 for constructing permanent highway No. 3 submitted by A. H. Zone & Co., of Hanford, at $40,871. J. L. Cross, Co. Aud.

Seattle, Wash.—Plans have been approved by Bd. Public Works for paving McDonald St.; cost $124,000.

South Bend, Wash.—Lowest bids opened Mar. 31 for constructing Permanent Highway No. 1, submitted by M. D. Hogan, of Hoquiam, $19,960. Contract not yet awarded awaiting Supreme Court decision. Chas. B. Nims, County Engr.

Spokane, Wash.—Bids desired until Apr. 22 by J. C. Argall, Purchasing Agent, for the purchase of 100 tons asphalt f. o. b. cars Spokane.

★**Spokane, Wash.**—Contract for pavement to connect Spokane and Hillyard, Spokane bituminous No. 2, with 26,023 lin. ft. concrete and concrete foundation, awarded Apr. 6 to Mitchell Bros. & Payne, at $62,255. G. W. Duffy, City Clk.

Tacoma, Wash.—Pierce County is preparing plans for paving several pieces of road in the near future; bids will be received for concrete 1 and 2 course, Warrenite asphalt.

Washington.—Bids reported desired until May 3 by State Highway Bd., Olympia (Wm. B. Roy, Comr.), for surfacing with crushed stone 3 sections of Pacific Highway, as follows:

Cowlitz Co., 3 miles, from Kalama southerly and 2 miles, from Carrollton northerly.

Whatcom Co., 6 miles, from Blaine south.

Vancouver, Wash.—Surveyors, including W. A. Schwarz Co., Engrs., and Engr. Gillis, of State Highway Comn., Olympia, are surveying for work to be done on the Pacific Highway in Clarke County, and bids will probably soon be called for. The State Legislature made an appropriation of $192,500 for the route

Urbana, O.—Following are 4 lowest bids opened Apr. 1 for paving N. Main St. with brick (Emmett F. Seabury, City Engr.): (a) Shoup & Murray, Dayton, $36,897; (b) Heffner & Son, Celina, $37,412; (c) Edw. Ryan, Springfield, $38,755; (d) Brewer, Tomlinson & Brewer, Chillicothe, $40,109.

	(a)	(b)	(c)	(d)
18,400 sq. yds. vitrified brick (22% test)	$1.66	$1.75	$1.78	$1.82
1,400 lin. ft. granite block along car rails	.20	.16	.20	.20
6,000 lin. ft. straight Berea stone curb, 18 inch	.54	.45	.50	.56
370 lin. ft. circular Berea stone curb, 18 inch	.90	.90	1.00	1.00
500 lin. ft. stone protection curb	.30	.35	.40	.35
2,830 sq. yds. street car portion extra excavation and concrete	.75	.55	.70	.80
26 inlets reset to new curbing	3.00	4.00	2.00	2.00
600 lin. ft. curbs reset	.25	.20	.20	.20

★Items marked thus give the names of parties awarded contracts.

from Toledo to Vancouver, Wash.; Clarke County's share is about $60,000. It is proposed to grade highway from end of hard surface pavement near Solomon Creek 7 miles from Ferry Landing to La Center; to be paved with macadam.

Hood River, Ore.—Lowest bid opened by State Highway Dept. at Salem for constructing Mitchell Point section of Columbia Highway was submitted by Standifer-Clarkson Co., Portland, at $40,383.

North Bend, Ore.—Bids reported desired Apr. 27 by City Clerk for paving with gravel, bitulithic, bituminous macadam, crushed rock, rock asphalt, sheet asphalt or asphaltic concrete city streets. Estimated cost $16,000.

Oregon City, Ore.—City Engineer has been directed to prepare plans for repaving Main St. with asphaltic concrete.

Pacific Highway from Oregon City south is to be paved with gravel by county.

About $300,000 is to be spent by county for road and bridge work.

Portland, Ore.—Lowest bid opened by City Council for paving with concrete Cumberland Rd. submitted by Jeffery & Bufton, Union Ave. and E. Davis St., at $19,303.

East Alader St. is to be paved with basalt stone blocks, sidewalks to be of concrete; cost about $18,201.

Salem, Ore.—Bids reported desired until Apr. 23 by Max Gehlhar, Co. Clk, for grading and graveling and for grading and macadamizing near Slayton.

St. Johns, Ore.—O. Burson, City Engr., has been directed to prepare plans for paving with concrete Pittsburg St.; estimated cost $13,000.

Yoncalla, Ore.—Bids reported desired until April 24 by W. F. Lauman, City Recorder, for improving Front St., requiring 2300 ft. paving. Probable cost; $10,654.

Warrenton, Ore.—Citizens voted to pave with oil bound macadam Warrenton-Flavel Rd.; cost about $11,000.

California—Bids opened Apr. 5 by State Highway Comn., Sacramento (Austin B. Fletcher, Engr.) for improving State highways as follows

★Yolo County, Div. 3, Route 6, Sect. A, awarded to Palmer & McBryde, San Francisco, as follows: 65,000 cu. yd. excav. (without classification), 30 cts.; 300 lin. ft. 12-in. cor. iron pipe, 50 cts.; 50 lin. ft. 18-in., 60 cts.; 15 cu. yd. cement concrete, Class B (culverts and monuments), $15; 7210 cu. yd. cement concrete (pavt.), $3; 48 monuments (haul and set), ea., $1; total, $41,583. Next 3 lowest bids: C. H. & A. W. Gorrill, San Francisco, $41,705; Jas. Fitzpatrick, Sacramento, $42,748; Leffler & Norton, San Francisco, $44,753; engineer's estimate, $52,253.

Yolo County, Div. 3, Route 6, Sect. C. Lowest bidder, Joe Lawrence, Broderick, as follows: 18,000 cu. yd. excav. (without classification), 50 cts.; 168 lin. ft. cor. iron pipe, 12 in., 50 cts.; 48 lin. ft. 18-in., 75 cts.; 160 lin. ft. 36-in., $1.50; 15 cu. yd. cement concrete, Class "B" (culverts and monuments), $6; 3700 cu. yd. cement concrete, Class "B" (pavt.), $2.85; 3500 tons gravel surfacing (haul and place), $1; 1700 lin. ft. guard rail, 40 cts.; 20 monument, to haul and set, each, $1.50; total, $24,205. Next 3 lowest bids: Petersen & Grier, San Francisco, $27,485; Bates, Borland & Ayer, Oakland, $28,552; L. F. Gerdetz, San Francisco, $28,580. Engineer's estimate, $38,638.

Tulare County, Div. 6, Route 4, Sect. E. Lowest bidder, W. A. Kettlewell & Sons, Sanger: 24,000 cu. yd. excav. (without classification), 45 cts.; 180 lin. ft. 12-in. cor. iron pipe, 75 cts.; 125 cu. yd. concrete culverts, Class "B" (culverts and monuments), $10; 5200 cu. yd. cement concrete, Class "B" (pavt.), $2.20; 4000 lin. ft. guard rail, $1.36; 58 monuments, to haul and set, each $1; total, $29,123. Next 3 lowest bids: Geo. S. Benson & Sons, Los Angeles, $32,542; Hoffman & McLaren, Oakland, $32,815; Taylor & Berliner, Los Angeles, $34,458. Engineer's estimate, $31,909.

Tulare County, Div. 7, Route 4, Sect. E2. Lowest bidder, W. A. Kettlewell & Sons, Sanger, as follows: 34,000 cu. yd. excav. (without classification), 45 cts.; 60 lin. ft. cor. iron pipe, 12 in., 75 cts.; 60 lin. ft. 24-in., $1; 121 cu. yd. cement concrete, Class "B" (culverts and monuments), $10; 8210 cu. yd. cement concrete, Class "B" (pavt.), $2.20; 84 monuments to haul and set, each, $1; total, $34,761. Next 3 lowest bids Geo. S. Benson & Sons, Los Angeles, $41,662; Hoffman & McLaren, Oakland, $48,401; Taylor & Berliner, Los Angeles, $49,940. Engineer's estimate, $45,675.

Yuba County, Div. 3, Route 3, Sect. A. Lowest bidder, E. E. Roddan & Son, Wheatland, as follows: 15,000 cu. yd. excav. (without classification), 59 cts.; 80 lin. ft. 12-in. cor. iron pipe, 50 cts.; 200 lin. ft. 18-in., 60 cts.; 48 lin. ft. 24-in., 75 cts.; 80 cu. yd. cement concrete, Class B (culverts and monuments), $10; 3210 cu. yd. cement concrete, Class B (pavt.), $3; 1320 lin. ft. guard rail, 35 cts.; 38 monuments (haul and set), each, $1.25; total, $19,985. Other bids: Leffler & Norton, San Francisco, $27,933; Highway Paving & Constr. Co., San Francisco, $20,696; F. Rolandi, San Francisco, $27,002. Engineer's estimate, $19,943.

★Orange County, Div. 7, Route 2, Sect. A, awarded to Brashear-Burns Co., Los Angeles, as follows: 77,500 cu. yd. excav. (without classification), 33½ cts.; 1440 lin. ft. wooden piles, 75 cts.; 258 lin. ft. 18-in. cor. iron pipe, 90 cts.; 562 lin. ft. 24-in., $1; 500 cu. yd. cement concrete, Class B (culverts and monuments), $7.50; 46 monuments (haul and set), each, $1; total, $31,633. Next 3 lowest bids Hoffman & McLaren, Oakland, $34,386; Robt. Sherer, Los Angeles, $34,715; Jas. S. Hilend, Anaheim, $36,233. Engineer's estimate, $36,175.

★**Coronado, Cal.**—Contract for paving and constructing sidewalks on Glorietta Boulvd. awarded by Bd. Trus. to John Engelbretsen, San Diego, at $41,004.

Hanford, Cal.—About $70,000 bonds for constructing state highways have been sold.

Long Beach, Cal.—About $250,000 is to be spent by city for street improvements.

★**Los Angeles, Cal.**—Contract for paving with asphalt Figueroa St. awarded by Bd. Pub. Wks. to George H. Oswald at $151,833.

Bids reported desired until Apr. 26 by Bd. Superv. for road improvements in Road Dist. No. 34, approximately 5070 cu. yds. excav., 13,204 lin. ft. shaping roadway, 35,308 sq. yds. concrete pavt. with bituminous wearing surface; 81,500 cu. yds. concrete in culverts and end walls; 2431 lbs. reinforcing steel in culverts, etc. Probable cost, $45,875.

Marysville, Cal.—About $40,000 paving bonds have been sold.

Riverside, Cal.—Bids reported desired until Apr. 21 by Bd. Superv. for improving Routes 20 and 22 a total of 105 miles, including grading, graveling and oiling.

Bids reported desired Apr. 26 by Harry Cree, City Clk., for improving 7th St. cement curbs, concrete sidewalks, corrugated culverts, etc.; same time separate bids for macadamizing Fairmont Boule., including culverts, cement sidewalks, etc.

Santa Ana, Cal.—Bids desired until Apr. 20 by Bd. Superv. for improving Dyer, Fairview Smeltzer and Wibtersburg Roads. W. B. Williams, Co. Clk.

San Bernardino, Cal.—Bids desired until Apr. 20 by County Bd. Superv., San Bernardino, to construct roads to consist of 16 ft. concrete pavt. with 2-ft. oiled shoulders, as follows: Road No. 4, Colton Ave., Div. C, 2.70 miles; Road No. 5, Colton Ave., Div. D, 4 miles; Road No. 6, San Bernardino Ave., 1.50 miles; Road No. 7, Archibald Ave., 3.50 miles; also constructing with 16-ft. macadam pavt., 2-ft. oiled shoulders, roads as follows: Road No. 11, Chino Ave., 1.25 miles; Road No. 8, 10th St., Upland, 3 miles, and 10th St. Diagonal, .60 mile. E. R. Patty, Co. Clk.

San Francisco, Cal.—The Works Bd. voted to pave Arkansas and 44th Aves., Mariposa and 20th Sts.; cost $43,200.

Bd. Works decided to improve portions of the following streets Valley, $5,500; Parnassus Ave., $14,500; Buena Vista Ave., $5,000.

San Jose, Cal.—City Council approved plans and specifications for paving Empire, Jackson, Vine, Post, 8th, Balbach Sts.

Visalia, Cal.—About $450,000 road bonds have been sold by county.

Yuma, Ariz.—About $500,000 bonds have been sold by Yuma County for constructing 2 roads through Yuma Reclamation Project.

Salt Lake City, Utah.—The City Comn. has appropriated $39,300 to meet the city's portion of cost of street paving.

Utah.—The Governor has signed bill providing for a biennial appropriation of $100,800 for state aid for constructing roads throughout state.

Lewiston, Idaho.—City Council is considering paving 9th St.; cost about $20,000.

Moscow, Idaho.—Contract is about to be let by City Council for paving Polk St.; cost, $10,000.

Sandpoint, Idaho.—City Council voted to pave 22,000 sq. yds.; cost about $75,000.

Montreal, Que.—A press report states that this city will spend this year $1,300,000 for paving streets and $800,000 for macadamizing.

Toronto, Ont.—Bids desired until Apr. 27 by T. L. Church (Mayor), Chmn. Bd. Control, for paving with asphalt Brunswick Ave. and Essex and several other streets, with asphaltic concrete, Maitland Pl. and with concrete, lane first west of Beverly St.

★**Vancouver, B. C.**—Contract for paving Marine Drive and other streets awarded to Cotton Co., Ltd., at about $175,000.

Plans and specifications have been completed by city engineer for extending 12th Ave. to Kingsway; cost, about $45,000.

★**Nanaimo, B. C.**—A. Gough, City Clk., writes contract has been awarded for paving on Haliburton, Front, Wallace, Skinner and Macelery Sts., to H. J. Kaiser. Work on Haliburton St. to cost $50,000, now in progress, work on other streets will cost about $90,000. W. A. Owen, City Engr.

STREET CLEANING AND GARBAGE DISPOSAL.

Items Arranged Geographically

Manchester, N. H.—Bids desired until Apr. 30 by Bd. Pub. Wks. (Harry W. Spaulding, Mayor, Chmn.) to furnish material and construct a refuse destructor.

★**Schenectady, N. Y.**—Contract awarded to M. F. Dollard, of Albany, for collecting garbage and ashes in Schenectady, at $48,500 a year for 5 years, and an allowance of $6,000 for equipment now owned by city.

Trenton, N. J.—Frank Thompson, City Clk., writes no plans have yet been prepared for proposed garbage disposal plant.

Philadelphia, Pa.—Bids were opened Apr. 8 by Dept. Pub. Wks. for garbage disposal for 1916, and the only bid received was submitted by the Penn Reduction Co., at $363,588. Wm. H. Connell, Ch. Bureau of Highway and Street Cleaning.

Pontiac, Mich.—Citizens voted Apr. 5 to grant the National Reduction Co., of Cleveland, O., a franchise for disposal of garbage.

Hillsboro, Tex.—Citizens voted Apr. 6 to issue $5,000 bonds for constructing crematory. A. Humphries, City Engr. M. W. Lovell, Mayor.

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Items Arranged Geographically

★**Concrete Piers—Concord, N. H.**—Contract awarded by Bd. Pub. Wks. to New Hampshire Cement Constr. Co., Manchester, for building 2 concrete piers at Penacook, to include about 375 cu. yds. concrete.

Terminal—Fall River, Mass.—Wm. A. Hart, Secy. Chamber of Commerce, writes that a bill appropriating $350,000 has been reported from the Harbor & Lands Com. to the Ways and Means Com. of the Legislature.

Hydro Electric Plant—Westfield, Mass.—The Water Comrs. approved town-meeting article relative to the proposed hydro-electric plant in connection with proposed new dam and reservoir on Granville watershed, and it was recommended that committee on appropriations indorse plan. To obtain authority to establish such a power plant it will be necessary to have a special act passed by State Legislature.

Dredging—Providence, R. I.—Following are the bids opened Mar. 30, by Col. John Millis, Corps Engrs., U. S. A., Newport, for dredging in Providence Harbor —(a) price per cu. yd., (b) totals: P. Sanford Ross, Jersey City, N. J., (a) 30 cts. and 10.5 cts., (b) $91,833; John H. Gerrish, Boston, Mass., (a) 28.9 cts. and 16.0 cts., (b) $104,733; J. S. Packard Dredging Co., Providence, R. I., (a) 19.94 cts., (b) $92,113.

★**Revetment Work—Wethersfield, Conn.**—Contract awarded by Maj. G. B. Pillsbury, Corps Engrs., U. S. A., New London, for bank revetment in Connecicut River at Wethersfield, to Olsen & Klavens, 336 61st St., Brooklyn, N. Y., at $16,090 (bids opened Mar. 1).

State Canal Work—Albany, N. Y.—The Governor has signed the bill appropriating $150,000 for repairing and improving existing mechanical and other structures connected with canals of the State, in addition to fund appropriated for ordinary repairs to canals.

Hydro-Electric Plant—Seneca Falls, N. Y.—M. G. Barnes, of Albany, Engr. for Seneca Falls Power Co., writes that the proposed construction of a hydro-electric power plant at Seneca Falls, capable of developing 7500 10 hour hp., has been postponed for the present. Ernest Gould, of Seneca Falls, is attorney for company.

Levee Work—Augusta, Ga.—Bids desired until Apr. 27 by City Council for the River and Canal Comn., 747 Broad St., for constructing an earth levee along Savannah River below Augusta, Sects. 5 and 6, approximately 500,000 cu. yds. in each section, advertised in Engineering Record. Nisbet Wingfield, Ch. Engr.

★**Wharves — Jacksonville, Fla.**—Contract has been awarded by Bd. Port Comrs. (F. W. Bruce, Ch. Engr.) Mar. 20 for constructing timber wharves and municipal dock to E. W. Parker, Tampa, for one part, at $7,650, and to Hillyer & Sperring Co., Jacksonville, for the other part, at $4,660.

Dredging — Winter Haven, Fla.—Bids desired until Apr. 24 by Bd. Directors (Lycurgus Burns, Chmn.) at office of Twenty Lakes Boat Course Club for dredging the Twenty Lakes Boat Course Canal, advertised in Engineering Record. Atlantic Eng. Co., Engrs., Savannah, Ga.

Donaldsonville, La.—It is reported that bids are desired by Comrs. of the Bayou Conway Drainage Dist., at Donaldsonville, for removal of 1,000,000 cu. yd. earth, deepen present channel and build new canal; work to cover about 20 miles. Cost, about $90,000.

Drainage—Plain Dealing, La.—Bids desired until Apr. 21 by Comrs. North Bossier Levee Dist., Plain Dealing (J. Perry, Secy.), for improving drainage in Posten and Phelps Lake, Bossier Parish. Approximate contents 72,000 cu. yds. F. B. Grevemberg, Jr., Engr., Continental Bank Bldg., Shreveport.

★**Drainage System — Dresden, Tenn.**—Contract awarded Apr. 8 by Commissioners of Middle Fork and Spring Creek Drainage and Levee Dist. No. 1, Weakley County, to R. H. & G. A. McWilliams, Memphis and Chicago, for 676,000 cu. yds. of levee embankment, and 543,000 cu. yds. ditch excav., at $122,059. Contractor purchased bonds. Morgan Eng. Co., Memphis, Engrs. for District.

Drainage—Paducah, Ky.—F. F. Shafer, of Louisville, employed by Dept. of Agriculture, is here surveying the Mayfield Creek Drainage Dist., and will submit report to County Court, with estimate of cost of draining creek.

★**Dredging—Columbia City, Ind.**—Contract for dredging big Blue Creek Ditch awarded Apr. 3 to Clyde A. Walb, of Lagrange, and C. J. Ness, of Columbia City; cost about $32,239.

Flood Protection—Indianapolis, Ind.—Bids will be opened Apr. 26 (extension of date from Apr. 23) for flood protection work along west bank of White River from Belt R.R. tracks on the south to 14th St. on the north. The work is to be divided into 7 sections; estimated cost $618,000. B. J. T. Jeup, City Engr.

River Improvement — Detroit, Mich.—Bids desired by Lieut.-Col. Mason M. Patrick, Corps Engrs., U. S. A., Detroit, Mich., for the following work, all 4 proposals advertised in Engineering Record.

Until Apr. 28—Dredging ship channel in Lake St. Clair, Mich.

Until May 11—Furnishing and placing stone riprap along lake face of main breakwater, Harbor Beach, Mich.

Until May 12—Constructing and placing 2 timber cribs and replacing with concrete timber superstructure, breakwater at Harbor Beach, Mich.

Until May 15—Constructing concrete masonry for 4th lock at Sault Ste. Marie, Mich.

★**Ditch — Bloomington, Ill.** — Contract awarded to Fred M. Crane Co., of Omaha, Neb., for constructing ditch of the Prairie Creek Drainage Dist., in Empire and West Townships, about 142,149 cu. yds. excav. at 8.74 cts. per cu. yd.; total about $13,000.

Drainage—Clinton, Ia.—County Bd. of Supervisors have voted to construct a drainage system, about 17 miles in length; cost about $100,000.

★**Ditch—Nevada, Ia.**—Contract awarded by County Bd. Supervisors for constructing New Albany ditch No. 68 to Sargent Ditcher Co., of Ft. Dodge, at $20,572; for Indian Creek ditch No. 66, to Hawkeye Constr. Co., Webster City, for tile at $5,116, and H. L. Brown, of Maxwell, for laying the same, at $1,674.

Dam—Waverly, Ia.—Bids desired until Apr. 27 by H. R. Van Derveer, City Clk., for constructing a concrete dam and bulkhead across Cedar River at Waverly, advertised in Engineering Record. C. A. Cool, Engr.

Ditch Work—Slayton, Minn.—Bids desired until Apr. 20 by E. V. O'Brien, Co. Aud., for constructing Judicial Ditch No. 8; total length of ditch 20,900 ft.; about 20,500 ft. 6 to 16-in. tile will be needed; cost $8,512; also Judicial Ditch No. 6; length 34,600 ft.; about 29,500 ft. 6 to 24-in. tile; cost $14,454.

Ditch—St. James, Minn.—Bids reported desired until Apr. 30 at office of J. C. Jensen, Co. Aud., at St. James, for constructing Judicial Ditch No. 9, counties of Watonwan and Martin. Probable cost $32,843.

Concrete Work on Harriet Island—St. Paul, Minn.—Bids reported desired until Apr. 26 by August Hoenstein, Purchasing Agent, for constructing concrete work on Harriet Island.

Hydroelectric—St. Louis, Mo.—Civic experts are figuring on economy of building a canal connecting Missouri and Meramec Rivers and dam to supply hydroelectric power to St. Louis; estimated cost $10,000,000. Senator S. E. Bronson, Ozark, Mo., Secy. of State Comn., in charge of project.

Drainage Bonds—Crawfordsville, Ark.—Bids desired until Apr. 22 by Comrs. of Drainage Dist. No. 3 (W. W. Swepston, Chmn.) for $250,000 drainage bonds.

★**Wharves — Beaumont, Tex.**—Contract awarded to Spence & Howe, of Port Arthur, by the Magnolia Petroleum Co. for construction of 1000 ft. of concrete wharves for city, at about $75,000; with dredging and other work necessary, the total cost will be about $100,000.

Drainage—Richmond, Tex.—State Attorney General has approved issue of $61,000 bonds for Drainage Dist. No. 1.

Dam—Denver, Colo.—Bids reported desired until Apr. 24 at office of Franklin E. Brooks, Pres. Costilla Development Co., First Natl. Bank Bldg., Denver, for constructing Costilla Dam in Taos County, N. M., involving about 30,000 cu. yds. earth work and 3600 cu. yds. reinforced concrete. J. C. Ulrich, Project Engr., 210 W. 2nd Ave., Denver.

★Items marked thus give the names of parties awarded contracts.

★**Irrigation — Grand Junction, Colo.**—Contract has been awarded for construction of main canal station 1933 and 2437 and lateral district, Grand Valley project, Colo., in vicinity of Grand Junction and Fruita, Colo., about 640,000 cu. yds. canal excavation, Schedules 2, 3, 5, 6 and 7, at $59,921, to Mendenhall, Straw & Bird Co., Springville, Utah; for Schedules 1 and 4, about $38,675, to Reynolds-Ely Constr. Co., of Springville, Utah.

Ditch—Mt. Vernon, Wash.—The Comrs. Skagit County (W. V. Alexander, Clk.) considering establishment of a drainage district to provide for main open ditch, 4 to 8 ft. wide, with wood flume outlet or spillway; lateral ditch to consist of 8, 12 and 15-in. No. 2 vitr. clay sewer pipe and an open ditch 2 ft. wide.

★**Pumping Plant—Seattle, Wash.**—Contract for a pumping plant for Lake Washington canal locks awarded to R. D. Wood & Co., of Philadelphia, Pa., at $30,776 (bids opened Mar. 15 by U. S. Engr., at Seattle).

★**River Work—Coquille, Ore.**—Contract reported awarded to Puget Sound Bridge & Dredging Co., Seattle, for removal of 500,000 or 750,000 cu. yds. material from the river here for the Port of Coos Bay, at about 13 cts. per yd.

Irrigation Work—Provo, Utah.—Following are totals of 4 lowest bids opened by U. S. Reclamation Service, Provo, Apr. 8 for construction involving about 8000 yds. of canal excav. and 1350 yds. of reinforced concrete, near Payson City: Greene Constr. Co., Tooele, $14,300; Hedenberg, Olson & Gee, Provo, $16,201; Silas Hutchings, Springville, $17,357; Wasatch Grading Co., Salt Lake City, $29,574.

Irrigation Work — Provo, Utah.—Bids desired until May 4 by U. S. Reclamation Service, Los Angeles, to furnish material and erect riveted steel pipe for Strawberry Valley Project, Utah.

Dam—Salt Lake City, Utah.—Bids reported desired until Apr. 21 by Karl A. Scheid, City Recorder, to construct dam at Twin Lakes, Big Cottonwood Canon, to include rubble concrete dam, 65 ft. high (9100 cu. yds.), or a reinforced concrete dam (4000 cu. yds.), and 1000 cu. yds. excav. S. Q. Cannon, City Engr.

Harbor Work—Ontario.—Following are reported to be appropriations made recently by Dominion Government at Ottawa, Ont.: Harbor improvements at Port Arthur and Port William, $500,000; harbor improvements at Vancouver, B. C., $350,000, and miscellaneous improvements in the Fraser River $100,000.

ELECTRIC RAILWAYS.

Items Arranged Geographically

Brooklyn, N. Y.—The Public Service Comn. for the First Dist., New York, has ordered public hearings Apr. 23 on forms of contract for construction of 5 sections of the 14th St.-Eastern Rapid Transit Railroad. This is the so-called Eastern Dist. subway, which starts at 6th Ave. and 14th St., Manhattan, and runs under 14th St. and the East River to N. 7th St., Brooklyn, and thence through N. 7th St., Metropolitan Ave., Bushwick Ave., Johnson Ave. and the Long Island Railroad right-of-way to East New York. The 5 sections referred to cover the underground portion of the route, namely, from 6th Ave., Manhattan, to Bushwick Junction. The remainder of the route traversing the Long Island Railroad right-of-way will be an elevated railroad.

Phoenixville, Pa.—Plans being considered by Chester & Lancaster Ry. Co. to construct an electric railway to connect Lancaster and Phoenixville.

Columbus, O.—Bids desired until May 1 by Al. Reinhard, Clk. Council, for constructing street railways on certain streets, including Leonard Ave. Route and Joyce Ave. Route.

★**Ironton, O.**—Contract for building extension of Ohio Valley Traction Ry. from Ironton to Sciotoville has been awarded to O. S. Hord, Maysville, Ky., and A. Keithly, Huntington, W. Va.

★**Lawrence, Kan.**—Contract for grading 33 miles between Bonner Springs and Lawrence awarded by Joplin & Pittsburg Ry. Co. to S. S. Dolman & Son, Topeka.

Canton, Mo.—Preliminary arrangements being made to construct an electric railway from Keokuk, Ia., crossing Des Moines River at St. Francisville and extending to Jefferson City and Canton.

Glen Rose, Tex.—Glen Rose & Walnut Springs Ry. Co. contemplates constructing 40-mile electric railway from Glen Rose to Ft. Worth. J. H. Farr, Pres.

Seguin, Tex.—Guadalupe Valley Traction Co. chartered to construct an electric railway between Austin, Lockhart, Seguin and San Antonio.

Brandon, Man.—City Council voted to spend about $16,500 on extending Brandon Municipal Ry.

RAILROADS.

Items Arranged Geographically

Furman, S. C.—The Furman & Yemassee R.R. Co. reported formed, with a capital of $10,000, to construct a railroad from Furman to Yemassee, a distance of 20 miles. Motive power will be steam, and general offices to be located at Furman. J. H. Adams, W. P. Ellis and H. Weindal reported interested.

★**Goshen, Wash.**—Contract for construction of a branch railroad for the Milwaukee system reported awarded Apr. 8 to Twohy Bros., Spokane, Wash. The road will be 12 miles long and extend from Goshen to Welcome; total cost, including 2 bridges over Nooksack River, between $350,000 and $400,000.

★**Grants Pass, Ore.**—Contract reported awarded to Twohy Bros., Portland, to complete California & Coast R.R. from Grant Pass, Ore., to Crescent City, Cal.; total cost about $5,000,000.

Roseburg, Ore.—Kendall Bros., of Pittsburgh, Pa., through S. A. Kendall, has submitted a proposition to the people of Roseburg whereby they agree to construct a standard gauge railroad from this city to their timber holdings on the North Umpqua River, about 30 miles in length, at a cost of about $750,000, and erect a sawmill in Roseburg, to cost about $200,000, and make other investment here in exchange for a mill site right-of-way and municipal bonds in the sum of $300,000.

Lewiston, Idaho.—It is reported that the Lewiston, Nez Perce & Eastern R.R. Co. will construct branch line from Lewiston, Idaho, to Vollmer, Idaho. Z. A. Johnson, Pres.

Lewiston, Idaho.—The Lewiston, Nez Perce & Eastern R.R. Co., reported formed to take over the Nez Perce & Idaho R.R., which extends from Nez Perce to Vollmer, Idaho, and from Lewiston to Tammany. A bond issue of $5,000,000 has been authorized, and the first issue will be for $1,850,000, to be used to purchase the Nez Perce & Idaho road and extend the line to Waha Prairie. It is planned to build the extension this year. Z. A. Johnson, of Lewiston, Pres.

Hamilton, Ont.—City Engineer Macallum estimates cost of lowering T. H. & B. tracks below street level at $960,000 or raising them at $700,000.

PUBLIC BUILDINGS AND SCHOOLS.

Items Arranged Geographically

Auburn, Me.—Bids desired until May 1 by School Bldg. Com., care of Harry S. Coombs, Archt., Lewiston, to furnish material and erect Webster Grammar School at Auburn; also separate bids for heating, plumbing and electric wiring. Cost reported not to exceed $100,000, including fee of architect.

Mexico, Me.—Miller & Mayo, of Portland, have prepared plans for the school to be erected here.

Boston, Mass.—See "Miscellaneous."

Cambridge, Mass.—Following are four lowest bids received by Superintendent Buildings, on general contract for erecting building for tuberculosis hospital: John B. Byrne, Inc., $56,387; Jos. M. Dolan, $56,773; J. J. Powers, $59,756; C. S. Cunningham Constr. Co. $61,814. Lowest bid for plumbing was from P. J. Mooney at $4,447.

★Contract for erecting above tuberculosis hospital awarded to J. B. Byrne, Inc., at about $53,337. Geo. R. Greco, Archt., Boston.

Following are four lowest bids opened March 31 by Supt. of Buildings for general construction of new Agassiz School: Jos. M. Dolan, $44,081; McGahey & O'Connor, $50,664; John B. Byrne, Inc., $50,937, and J. J. Powers, $51,269. Plumbing, lowest bid, Crosby Conley Co., $2,390; electric and gas fixtures, Thos. W. Byrne, $1,542; heating and ventilating, Lynch & Woodward, $8,770.

New York, N. Y.—Bids were opened Apr. 9 by Public Service Comn. for 1st Dist., 154 Nassau St., for construction of Sect. 4 of Routes 4 and 36, a part of the Bway.-4th Ave. Rapid Transit R.R., in Boro. Manhattan, to consist of a 2, 4 and 6-track underground railroad northerly under 7th Ave., from 51st St. to 59th St., and easterly under 59th St. to a point 22 ft. west of westerly building line of the 7th Ave. extended: (a) Litchfield Constr. Co., 23 Flatbush Ave., Brooklyn, $1,937,509; (b) Rodgers & Hagerty, Inc., 152d St. and Hudson River, $2,089,457; (c) T. A. Gillespie Co., 50 Church St., $2,159,065; (d) Degnon Contr. Co., 30 E. 42d St., $2,165,890; Mason & Hanger Co., $2,217,955; J. F. Cogan Co., $2,221,561; Oscar Daniels Co., $2,277,270; Godwin Constr. Co., $2,298,244; Inter-Continental Constr. Co., $2,318,778; Norton & Gorman Contr. Co., $2,343,687; Smith, Hauser & MacIsaacs, Inc., $2,442,079; E. E. Smith Contr. Co., $2,447,695; Underpinning & Foundation Co., $2,593,821 (bidders of New York, unless otherwise stated) (not yet awarded).

Unit prices of 4 lowest bidders, a, b, c and d:

Item		(a)	(b)	(c)	(d)
1	98,700 cu. yds. earth excav. above m. h. w.	$3.19	$2.00	$4.75	$4.00
2A	2,600 cu. yds. earth excav. for sewers, pipes, ducts, etc.	3.19	2.00	4.75	4.00
3	153,500 cu. yds. rock excav.	4.90	6.00	4.75	4.50
3A	3,700 cu. yds. rock excav. for sewers, pipes, ducts, etc.	4.90	6.00	4.75	4.50
4Z	1,100 lin. ft. maintain., protect., secur. and underpin.	20.00	10.00	60.00	40.00
4I	Supporting and perm. underpinning Central Park Apartments (lump sum)	5,000.00	36,000.00	2,000.00	40,000.00
4Y	30 lin. ft. restoring Central Park stone wall fence	10.00	5.00	12.50	50.00
5	2,200 cu. yds. tunnel excav.	7.00	10.00	8.00	10.00
6	31,200 cu. yds. concrete masonry	7.50	9.00	8.50	9.30
7	3,740 cu. yds. protective concrete	7.50	9.00	8.50	9.30
8	3,000 cu. yds. rubble stone masonry	8.00	3.00	4.00	8.00
8A	50 cu. yds. dry rubble stone masonry	6.00	3.00	3.00	7.00
9	100 cu. yds. brick masonry	20.00	15.00	15.00	15.00
10	50 cu. yds. hollow terra-cotta masonry	15.00	15.00	15.00	15.00
11	2,000 bbls. grout of Portland cement	4.00	3.00	2.85	1.50
12	1,000 lin. ft. timber piles	.40	.25	.40	.20
13	2 M ft. timber foundations	50.00	50.00	45.00	50.00
14	100 cu. yds. broken stone or gravel	2.00	2.50	1.50	2.50
15	4,900 sq. yds. (a) waterproof., 1 ply	.30	.35	.40	.50
	100 sq. yds. (b) waterproof., 2 ply	.50	.60	.65	.75
	24,700 sq. yds. (c) waterproof., 3 ply	.70	.75	1.00	1.10
	100 sq. yds. (d) waterproof., 4 ply	.90	1.25	1.25	1.45
	100 sq. yds. (e) waterproof., 5 ply	1.10	1.50	1.50	1.75
	1,500 sq. yds. (f) waterproof., 6 ply	1.30	2.00	1.90	2.00
	100 sq. yds. (i) waterproof., dry ply	.20	.35	.30	.40
16	660 cu. yds. brick in asphalt mastic	25.00	25.00	20.00	25.00
17	100 lin. ft. (a) 12-in. vitr. pipe	.60	.75	.75	.80
	100 lin. ft. (b) 10-in. vitr. pipe	.50	.65	.55	.55
	5,150 lin. ft. (c) 8-in. vitr. pipe	.40	.50	.45	.30
	100 lin. ft. (d) 6-in. vitr. pipe	.30	.45	.40	.25
	100 lin. ft. (e) 4-in. vitr. pipe	.20	.40	.30	.20
	100 lin. ft. (g) 6-in. c.-i. pipe	1.20	1.00	.75	1.00
	4,740 lin. ft. (h) 4-in. c.-i. pipe	.75	.50	.55	1.00
	25 lin. ft. (i) 10-in. c.-i. pipe	1.50	1.75	1.50	1.50
17A	50 lin. ft. (a) 3-in. extra heavy c.-i. pipes, specials and fittings	.50	1.00	.60	1.00
	100 lin. ft. (b) 4-in. extra heavy c.-i. pipes, specials and fittings	.70	1.25	.75	1.00
	180 lin. ft. (c) 6-in. extra heavy c.-i. pipes, specials and fittings	1.25	1.50	1.00	1.50
	150 lin. ft. (d) 8-in. extra heavy c.-i. pipes, specials and fittings	1.75	2.50	1.30	1.75
18	156,330 duct ft. tunnel ducts	.10	.11	.12	.10
18A	22,100 duct ft. railroad ducts	.10	.15	.12	.15
19	2,510 tons riveted steel	60.00	63.00	60.00	64.00
20	2,350 tons steel beams and shapes	55.00	57.00	55.00	54.00
21	150 tons steel rods and bars	55.00	60.00	50.00	50.00
25	27 tons miscell. iron castings	50.00	70.00	50.00	50.00
25C	6 tons miscell. sewer furnishings	50.00	100.00	50.00	50.00
26	1,000 lbs. special wire forms	.03	.10	.15	.10
27B	2,980 lin. ft. 1¾-in. oak or ash handrail	1.00	.45	.50	.75
28	7,840 sq. ft. steel gratings	1.40	1.50	1.50	1.00
29	5,000 sq. ft. vault light	1.25	1.50	1.80	1.00
	Street Surface Restored:				
30	5,250 sq. yds. (a) within curb lines	2.00	1.50	2.00	2.00
	15,140 sq. yds. (e) with asphalt	2.50	2.00	2.00	2.50
	350 sq. yds. (f) granite block	2.50	2.50	2.50	3.50
	290 sq. yds. (g) asphalt block	2.50	2.50	2.50	3.50
	100 lin. ft. (i) new blue stone curb	1.00	1.50	1.00	1.50
	2,760 sq. yds. (j) wooden block	3.00	3.00	2.50	3.50
30	100 lin. ft. (k) 8-in. granite curb	2.00	2.00	1.00	1.50
31	840 sq. yds. park surface restored	.25	1.00	2.00	2.00
32	4,500 lin. ft. (a) w.-i. elec. conduits, ¾ in.	.15	.15	.20	.25
	200 lin. ft. (b) w.-i. elec. conduits, 1½ in.	.30	.25	.40	.40
	250 lin. ft. (c) w.-i. elec. conduits, 2 in.	.40	.30	.55	.60
	2,400 lin. ft. (d) w.-i. elec. conduits, 1 in.	.20	.20	.25	.30
33	510 cast-iron outlet boxes, ea.	.50	1.00	.70	1.00
34	150 lin. ft. (a) extra heavy c.-i. pipes and fittings, 6 in.	1.00	1.50	.90	1.50
	120 lin. ft. (b) extra heavy c.-i. pipes and fittings, 3 in.	.75	1.00	.50	1.00
37	710 lin. ft. 12-in. vitr. pipe sewer	1.25	2.40	1.50	3.50
38	1,020 lin. ft. 15-in. vitr. pipe sewer	2.00	2.75	2.00	4.00
39	160 lin. ft. 18-in. vitr. pipe sewer	2.50	3.25	2.50	4.50
40	1,300 lin. ft. 20-in. vitr. pipe sewer	2.75	4.00	2.85	5.00
40A	100 lin. ft. 22-in. vitr. pipe sewer	3.00	4.50	3.50	5.50
41	450 lin. ft. 24-in. vitr. pipe sewer	3.25	5.00	4.10	6.00
42	47 tons c.-i. sewer pipe	40.00	40.00	40.00	60.00
43	23 tons c.-i. sewer pipe special castings	75.00	75.00	80.00	90.00
45	130 lin. ft. 3 ft. 6 in. x 2 ft. 4 in. egg-shaped brick or concrete sewer	3.75	6.25	5.00	10.00
47	140 lin. ft. 4 ft. 0 in. x 2 ft. 8 in. egg-shaped brick or concrete sewer	4.65	7.50	6.00	12.00
75	5,340 lin. ft. (a) street surface railroad, underground trolley	5.00	10.00	6.00	12.00
76	4 (b) support elevated railroad cols., partly or wholly off subway, ea.	500.00	500.00	500.00	1,000.00
79	530 lin. ft. 6-in. water pipe	.75	.40	1.00	1.50
82	210 lin. ft. 12-in. water pipe	1.50	.75	2.00	2.50
84	420 lin. ft. 20-in. water pipe	2.50	1.25	2.50	3.50
88A	30 service connect'ns for water pipes, ea.	8.00	25.00	20.00	25.00
90	320 lin. ft. 4-in. c.-i. gas pipe	.50	.40	1.00	1.00
91	740 lin. ft. 6-in. c.-i. gas pipe	.75	.50	1.50	1.25
92	630 lin. ft. 8-in. c.-i. gas pipe	1.00	.65	2.00	1.50
94	110 lin. ft. 12-in. c.-i. gas pipe	1.50	.75	2.50	1.75
99A	5,860 lin. ft. (a) 8-in. w.-i. by-passing pipe upon or below street surface	2.75	2.50	5.00	4.50
99B	210 lin. ft. (g) 8-in. w.-i. by-passing pipe on trestle	1.75	2.00	2.75	4.50
	210 lin. ft. (h) trestle	3.00	1.50	2.00	2.00
99C	110 lin. ft. (d) 10-in. w.-i. gas pipe	1.50	2.00	3.50	1.75
99D	30 service connections for gas pipe, ea.	8.00	25.00	15.00	25.00
100	5 tons new c.-i. hub and spigot straight pipe	30.00	35.00	35.00	40.00
100A	50 lin. ft. (d) new 10-in. stand'd weight w.-i. gas pipe	2.00	1.75	3.00	1.75
101	2 tons new c.-i. hub and spigot pipe special castings	50.00	65.00	50.00	60.00
101A	50 lbs. new malleable iron fittings for w.-i. gas pipe	.12	.20	.10	.10
102	110 lin. ft. 8-in. h.p. water pipe	2.00	.75	2.50	2.00
103	210 lin. ft. 12-in. h.p. water pipe	3.00	1.00	3.00	2.50
104	210 lin. ft. 16-in. h.p. water pipe	3.50	1.50	4.00	3.00
105	110 lin. ft. 20-in. h.p. water pipe	4.00	2.00	5.00	4.00
106	210 lin. ft. 24-in. h.p. water pipe	5.00	2.50	6.00	5.00
107	5 tons new c.-i. spigot and grove h.p. water pipe	50.00	35.00	40.00	40.00
108	10 tons new c.-i. spigot and grove h.p. special castings	75.00	65.00	50.00	60.00
127	1,050 duct ft. electric ducts and conduits, in place	.35	.50	.40	.50
127A	110 lin. ft. (a) 2½-in. w.-i. pipe electric conduits	.40	.50	.25	.75
	5,250 lin. ft. (b) 3-in. w.i. pipe electric conduits	.50	.50	.30	.75
	110 lin. ft. (c) 3½-in. w.-i. pipe electric conduits	.65	.50	.35	.75
	110 lin. ft. (d) 4-in. w.-i. pipe electric conduits	.75	.50	.40	.75
	110 lin. ft. (e) 4½-in. w.-i. pipe electric conduits	1.00	.50	.45	.75
	210 lin. ft. (f) 2-in. Edison conduits	.50	1.25	.20	1.50
	210 lin. ft. (g) 2½-in. Edison conduits	.50	1.25	.25	1.50
127C	16 service connections for electric conduits, ea.	8.00	25.00	10.00	50.00

★*Items marked thus give the names of parties awarded contracts.*

Dedham, Mass.—Citizens voted $130,000 to erect a high school.

Lawrence, Mass.—E. J. Wade, City Clk., writes that the proposed Oliver School, bids to be opened Apr. 20, will be 3 stories, brick, and cost $250,000. Jas. E. Allen, Archt., 283 Essex St.

Southbridge, Mass.—Plans prepared by Peabody & Stearns, Boston, for the new high school.

Watertown, Mass.—Plans being prepared for the brick grammar school to be erected on Arlington St.; cost $73,000. Address School Bd.

West Springfield, Mass.—Fowle & Harding of Westfield are architects for the proposed new high school to cost $95,000.

Worcester, Mass.—Additions are to be built to the Cambridge St. school, to cost $55,000, and to the Adams St. school, cost $31,000. Geo. C. Halcutt, Supt. Pub. Bldgs.

Bristol, R. I.—Town has appropriated $40,000 for erecting a school. Dr. H. W. Church, Chmn. School Bd.

Warren, R. I.—Town has appropriated $50,000 for erecting an 8-room school, brick construction. D. L. Morrisey, Chmn. School Bd.

Bridgeport, Conn.—Bids reported desired Apr. 19 by Bd. Educ. for erecting an 8-room school on Claremont Ave. Fredk. A. Cooper, Archt., Meigs Bldg.

Hamden, Conn.—Lowest bid opened by Bldg. Com. for erecting the school on Putnam Ave. was submitted by Jas. H. Hogan, at $28,300.

★**Hartford, Conn.**—Contract for steel equipment for the municipal building awarded to Crown Metal Constr. Co., at $27,500.

Windsor, Conn.—The main building to be known as the Founders Building is to be erected at the Loomis Inst.; cost, $300,000. Murphy & Dana, New York, Archts.

★**Amityville, L. I., N. Y.**—General contract for erecting 2-story home for Long Island Home awarded to E. W. Howell, Babylon, L. I.; cost, $40,000. Dr. O. J. Wilsey, Supt.; L. Inglee, Amityville, Archt.

Binghamton, N. Y.—S. O. Lacey, Binghamton, selected to prepare plans for the Helen and New St. schools.

Buffalo, N. Y.—Plans prepared by Geo. Cary, Delaware Ave. and Huron St., for a brick and steel addition to the laundry building at the Buffalo General Hospital. Dr. Renwick R. Ross, Supt.

Plans being prepared by City Architect Howard L. Beck, for Public School No. 31, to be erected at Emslie and William Sts., to be 3-story, structural steel and tile, fireproof, and estimated to cost $400,000.

The Mayor and Councilmen have approved the West Farm site hospital resolution providing a bond issue of $600,000.

Site at Cassy and Depot Sts. has been purchased by the Council for a stable for the Dept. of Streets.

Greatkills, S. I., N. Y.—Bids desired until Apr. 26 by C. B. J. Snyder, Supt. School Bldgs., New York City, for general construction, also plumbing and drainage of School 8, Greatkills, Boro. Richmond. Security $30,000 and $2,000 respectively.

Lockport, N. Y.—Supervisors have approved reports of building com. recommending plans and specifications prepared for 60-cell addition to the county jail and enlargement of the county clerk's office; cost, $50,000 to $60,000 and $25,000 to $32,000, respectively.

Middletown, N. Y.—Reported Bd. Educ. contemplates erecting 2-story brick addition to school on Mulberry St.

Mineola, L. I., N. Y.—Plans completed by I. B. Baylis, 55 Main St., Hempstead, for additions to and remodeling the school. Bids on general contract will be asked about April 15. Cost, $45,000. Address Bd. Educ.

Riverhead, L. I., N. Y.—Bids desired until Apr. 22 by Dwight T. Corbin, Secy. of Com., at office of County Bd. Superv., Riverhead, for furnishing material and erecting a group of buildings for the Suffolk County Tuberculosis Hospital, at Farmingville. Nathan Myers, Archt., Woolworth Bldg., New York City.

★**Rome, N. Y.**—Contract for erecting dormitory building at Rome State Custodial Asylum (bids opened March 1) has been awarded to Geo. B. Long of Worcester, Mass., for general construction at $88,500; heating, R. T. Ford Co., Rochester, $18,973; also plumbing at $9,973; electric work to Langdon & Hughes of Utica at $3,663.

★**Watervliet, N. Y.**—Contracts for erecting city hall awarded Apr. 12 as follows: Mason work, Chas. P. Boland Co., Troy, $28,400; carpenter work, Jas. T. Young, Watervliet, $13,100; electrical wiring and fixtures, Devoe-Stewart Electric Co., Troy, $1,025. Wm. B. Daubney, Clk. Bd. of Contract & Supply. Demers, Mosley & Champaigne, Archts., Troy.

Atlantic City, N. J.—Plans being prepared for 2-story school which Bd. Educ. intends erecting at a cost of $150,000.

★**East Rutherford, N. J.**—Contract for erecting St. Joseph Parochial School, at Hoboken Road and Hackensack St., awarded to Julius Koch Co.; cost, $40,000.

Paterson, N. J.—Bd. Estimates has provided $125,000 for erecting School No. 10. Plans are being prepared.

Plainfield, N. J.—Following are four lowest bids opened Apr. 2 by Superv. Archt., Washington, D. C., for erecting the Post Office (a) limestone, (b) sandstone, (c) light pink Tennessee marble: Chas. Gilpin, Philadelphia, Pa., (a) $82,978, (b) $89,538, (c) $105,100; J. Kresse Co., New York, (a) $83,900, (b) $88,000, (c) $111,000; S. W. Mather & Sons, Trenton, N. J., (a) $86,200, (b) $90,300, (c) $108,980; Geo. B. Wells & Co., New York, (a) $87,416, (c) $109,900; John Loury, Jr., New York, (b) $92,000.

Rutherford, N. J.—Citizens of East Rutherford Borough have voted $45,000 bonds to purchase a site and erect a school.

★**Woodstown, N. J.**—Contract for general construction of school has been awarded to Alex. Chambley, of Philadelphia, Pa., at $71,515.

★**Coatesville, Pa.**—Contract for erecting the school awarded to W. J. Elliott, of Coatesville, at $89,985.

Edwardsville, Pa.—Plans nearly completed by J. A. Boyle, Bennett Bldg., Wilkes-Barre, for the 2-story 25 x 120-ft. brick high school; cost $50,000.

Greenville, Pa.—Plans being prepared for gymnasium to be erected at Thiel College, at a cost of $35,000.

Hanover, Pa. — Citizens authorized School Bd. to borrow $85,000 for erecting high school.

Harrisburg, Pa.—Plans for the school in the 10th Ward are to be prepared by Chas. Howard Lloyd, Telegraph Bldg.; cost, $90,000.

Johnstown, Pa.—Plans being prepared for a fireproof brick school for St. Joseph Congregation, to contain 18 classrooms, auditorium, meeting rooms, dining room and kitchen.

Lancaster, Pa.—Citizens voted Apr. 6 to issue $250,000 bonds for erecting boys' high school.

Lansford, Pa. — E. E. Kuntz, Supt. School Bd., writes bids desired about June 1 for erection of proposed high school; to be fireproof, 3 stories, brick and stone, and cost $150,000, with $20,000 additional for equipment. Architect, Clyde S. Adams, 1509 Arch St., Philadelphia.

Luzerne, Pa.—Bids desired until Apr. 26 by David M. Morris, Secy. School Bd., Boro. School Dist., for erecting an addition to Bennett St. School. Pettebone & Lewis, Archts., 2d National Bank Bldg., Wilkesbarre.

Lebanon, Pa.—School Directors reported taking steps to erect the high school, probably on 6th and Chestnut Sts.

Peckville, Pa.—Bids desired until Apr. 20 at office of Jas. W. Smith, Secy. Blakely Poor Dist., Peckville, to erect a 2-story brick almshouse at Blakely Home, Scotts Township. Guy W. Osternout, Archt., Connell Bldg., Scranton.

Philadelphia, Pa.—Bids desired until May 1 by Commanding Officer, Frankford Arsenal, Philadelphia, for erecting a 2-story brick, concrete and steel building, 243 ft. 10½ in. long by 59 ft. 3 in. wide, for a tin shop, together with plumbing and elevator.

Mayor has signed bill appropriating $75,000 for site for new armory for National Guard at 32d and 33d Sts. and Lancaster Ave. State has appropriated $100,000 for the building.

Pittsburgh, Pa.—Bids desired until Apr. 27 (readvertisement) by Bd. Educ. (Geo. W. Gerwig, Secy.), to erect Schenley High School, Grant Boule. and Center Ave. Edw. Stotz, Archt., Monongahela Bank Bldg.

★**Port Carbon, Pa.**—Reported contract for erecting high school awarded to Wm. H. Wland, Pottstown at about $40,000.

Towanda, Pa.—Bids reported desired until Apr. 27 by W. M. Matchett, Secy. Bd. Educ., for erecting a fireproof high school. Pierce & Bickford, Archts., Elmira, N. Y.

Washington, Pa.—Plans of Frank McCrooks, McDonald, for the 2 annexes to the county home have been accepted by the Poor Bd.; cost, $50,000.

★**West Reading, Pa.**—Contracts for erecting school to cost $50,000 awarded as follows: General contract, Haupt & Rentz, Wyomissing; plumbing, L. E. Ruth, Warren; heating, National Htg. Co., Philadelphia.

Youngwood, Pa.—Plans of John H. Harman, Uniontown, selected for the 16-room brick and terra cotta high school to cost $45,000.

Baltimore, Md.—Plans for St. Peter's parochial school to be erected on Hollins and Poppleton Sts. are to be prepared by Murphy & Olmstead, of Washington, D. C., and Baldwin & Pennington, of Baltimore.

Beltsville, Md.—Bids desired until Apr. 30 by U. S. Dept. of Agriculture, Washington, D. C. (D. F. Houston, Secy.), to erect a 2-story brick and concrete building at the U. S. Experimental Farm Beltsville.

Farnhurst, Del.—Plans for new building at Delaware State Hospital at Farnhurst are to be prepared by Leon Wilde Crawford of Wilmington. Building is to be 3-story fireproof and cost about $60,000.

Washington, D. C.—Plans being prepared by Donn & Deming, Washington, D. C., for the chemical laboratory building for the Bureau of Standards, to be 4-story fireproof, 186 x 66 ft. and cost $180,000.

Elizabeth City, N. C.—Public Market bonds amounting to about $35,000 are reported sold.

Darlington, S. C.—High school building bonds amounting to $50,000 have been sold.

Greenville, S. C.—Greenville County will erect a court house to cost $60,000. D. B. Traxler, Chmn. Court House Comn.

★**Ridgeland, S. C.**—Contract awarded Apr. 6 by County Comrs. (J. E. Gill, Superv.) for erecting court house and jail buildings to C. V. York, of Raleigh, N. C., at $28,575. Wm. A. Edwards, Archt., Candler Bldg., Atlanta, Ga.

Cedartown, Ga.—Citizens voted $50,000 bonds for school improvements.

Ft. Screven, Ga.—Bids desired until May 5 by Constructing Quartermaster, U. S. A., for erecting a militia storehouse.

Rome, Ga. — Co. Comrs. considering erecting a new jail.

Municipal building bonds amounting to $75,000 have been sold.

Savannah, Ga.—Plans of J. DeBruyn Kops of Savannah selected for the brick and stone 16 room East Side School. Bids for construction to be asked at once.

Ft. Pierce, Fla.—Bids reported desired until May 4 by County Bd. Public Instructions at Ft. Pierce, for erecting a 2-story brick school to cost $25,000. F. H. Trimble, Archt., Fellsmere.

Live Oak, Fla.—Following are four lowest bids opened Apr. 6 by U. S. Superv. Archt., Washington, D. C., for constructing the U. S. Post Office at Live Oak, (a) limestone, (b) sandstone: W. H. Fissell & Co., New York, (a) $46,700, (b) $47,700; Westchester Eng. Co., White Plains, N. Y., (a) $47,900, (b) $50,000; Potters Lumber Co., East Liverpool, O., (a) $48,400, (b) $48,900; Howard & Wread, Bartow, Fla., (a) $48,447, (b) $48,697.

Birmingham, Ala.—Plans of Harry B. Wheelock, Birmingham, selected for the free dispensary. Dr. Geo. H. Denny, Pres. Univ. of Alabama, may be able to give further information.

★**Greenville, Miss.**—Contract for erecting high school awarded to Ager & Cline, Birmingham, Ala., at $34,000. R. H. Hunt, Chattanooga, Tenn., Archt.

Laurel, Miss.—Bd. City Comrs. passed ordinance authorizing $25,000 bond issue for school improvements.

Bids desired until May 18 by O. Wenderoth, Superv. Archt., Washington, D. C., to construct, complete (including mechanical equipment, lighting fixtures and approaches) U. S. Post Office, Laurel.

Cleveland, Tenn.—See "Sewerage and Sewage Disposal."

McMinnville, Tenn.—Plans of Edw. E. Dougherty of Nashville, selected for the high school; cost $30,000.

Memphis, Tenn.—Reported Prescott School, recently destroyed by fire, is to be rebuilt by the city and county at a cost of about $75,000. Address Bd. Educ.

★**Nashville, Tenn.**—Contract for erecting addition to the city and county hospital for tuberculosis awarded to J. M. Robinson & Co., at $34,032.

Park City, Tenn.—See "Sewerage and Sewage Disposal."

Louisville, Ky.—Plans for the Wm. R. Belknap School to be erected in Sils Ave. are being prepared by J. Earl Henry, Louisville. Building is to be 2-story and basement, fireproof, concrete and tile, and is to cost $75,000.

Brookville, O.—Bids desired until May 1 by Bd. Educ. (G. M. Grau, Clk.) for furnishing material and erecting high school. F. J. Hughes & Co., Archts., U. B. Bldg. Annex, Dayton.

Brooklyn Heights (P. O. Cleveland), O.—Bids desired until May 10 by Helen E. Chester, Clk. Bd. Educ., Brooklyn Heights School Dist., to furnish material and erect a brick fireproof school on Schaaf Rd., including heating, ventilating, plumbing, sewers and electric wiring. W. H. Nicklas, Archt., The 1900 Euclid Bldg., Cleveland.

Cincinnati, O.—A group of high school buildings to be erected here at a cost of $750,000.

Clarksville, O.—Reported bids desired by Robertson & Fahnestock, Archts., Gerke Bldg., Cincinnati, for an 8-room brick school to cost $30,000.

★**Cleveland, O.**—Contract awarded by Director of Pub. Utilities to Cleveland Fireproof Constr. Co. for constructing E. 79th St. substation of the municipal lighting plant, at $24,000.

★**Dayton, O.**—Contracts for erecting Dayton View School have been awarded as follows: General contract, to Structural Concrete Co., Dayton, $117,100; plumbing and gasfitting, to M. J. Gibbons, Dayton, $11,012; heating and ventilating, Lamneck Co., Columbus, $19,500; lighting fixtures, Hatfield Electric Co., Indianapolis, Ind., $830; also electric wiring, at $2,189; piping for vacuum system, United Appliance Co., Connorsville, Ind., $343.

Findlay, O.—Reported $100,000 bonds are to be issued by Co. Comrs. for new infirmary buildings.

★**Fostoria, O.**—Contract for erecting, including heating, lighting and plumbing of the Central School and 2-room addition to the North Union St. School has been awarded to L. E. Wood of Lima at $138,444.

Haskins, O.—At recent election citizens voted $35,000 bond to erect school.

Lakewood, O.—Chas. W. Hopkinson, Rose Bldg., Cleveland, has prepared plans for an addition to Harrison School and Albert E. Skeel, Rose Bldg., Cleveland, plans for an addition to Franklin School.

Lisbon, O.—Fairfield Township has decided to erect the central school on the Belgium site; cost $40,000.

Citizens of Lisbon and Center Township voted $70,000 high school bonds. Address Bd. Educ.

Marion, O.—Citizens voted $30,000 bonds to erect a centralized school in Claridon.

Marion, O.—Reported bids soon to be asked for $165,000 school bonds. Address Bd. Educ.

Mt. Vernon, O.—Bd. Educ. has decided to erect a $50,000 school.

Ostrander, O.—Plans prepared by C. L. Inscho, Columbus, for the high school, to cost $30,000.

Wadsworth, O.—Bids reported desired until May 4 by Chas. E. Holbein, Clk. Bd. Educ., for erecting 2 schools, including hot air heating, ventilating, plumbing, electric wiring, vacuum cleaning, etc.

West Chester, O.—Citizens of Union Township voted $30,000 bonds to erect a school near this village.

★**Wickliffe, O.**—C. C. Jenkins, Clk. Bd. Educ., writes that contract for erecting school (bids opened Mar. 31) awarded to Wm. Dunbar & Son, Cleveland. Next three lowest bidders: Cleveland Fire Proofing Co., $54,000; F. & D. Lindhort, $57,184, and C. A. Carson Co., $59,972 (bidders all of Cleveland).

★**Worthington, O.**—Contract awarded to D. E. Henke & Co., Zanesville, for erecting brick and fireproof high school to cost about $40,000.

Ft. Wayne, Ind.—Plans prepared by Mahurin & Mahurin of Ft. Wayne, accepted by Trus. Leonard Stolte for the school to be erected in Washington Township. Cost $25,000.

★**Grand Rapids, Mich.**—Contract for erecting 3-story brick, cement, tile and steel St. Andrews School awarded to Schildroth & Edwards at $46,614.

Hastings, Mich.—R. A. LeRoy, of Kalamazoo, is architect for the proposed schools, for which citizens recently voted to issue $83,000 bonds.

Anderson, Ind.—Plans for city hall are to be prepared by Cuno Kieble, of Muncie, and Ernest Watkins, of Anderson, to be 2-story brick and stone and cost $85,000.

Kendallville, Ind.—Plans being prepared by C. B. Weatherhogg, Ft. Wayne, for a $50,000 school.

★**Lagro, Ind.**—Contract for erecting brick and stone school awarded to W. Zed Morgan, of Kokomo, at $28,000. E. E. Dunlap, of Kokomo, Archt.

Logansport, Ind.—Reported plans being received for a city hall to be erected at 6th St. and Bway., and cost probably $60,000.

Portland, Ind.—Co. Comrs. intend erecting a court house, costing $75,000.

Detroit, Mich.—Plans of Louis Kamper Fine Arts Bldg., for the brick and stone City Tuberculosis Hospital, to be erected at Pingree and Schmittdiel Aves. have been approved by the Bd. Health; cost $400,000.

★Chas. A. Gadd, Secy. and Mgr. Bd. of Educ., writes contracts were awarded Apr. 8 for construction of Southeastern High School building as follows: General mason work, Otto Misch, $160,009; carpenter work, Schmied Sisman Co., $39,990; Electric wiring system, complete, Iron City Eng. Co., $19,663; electric dumb waiter, Otis Elevator Co., $1,120; sewer, Detroit Excav. Co., $2,080.

Kalamazoo, Mich.—Plans prepared for the fireproof, steel, reinforced concrete, brick and stone hospital which the Sisters of St. Joseph will erect on River Rd. at a cost of $200,000. Main building is to be 6 stories, 220 x 56 ft., with a 2-story wing 140 x 48 ft. A 2-story, 62 x 28 ft. fuel and pumping station also will be erected.

★ *Items marked thus give the names of parties awarded contracts.*

Chicago, Ill.—Bids desired until Apr. 21 by South Park Comrs. (J. F. Neil, Secy.) for constructing a group of park buildings, with swimming pool, boiler house, service yard; also separate bids for plumbing, sewers and water supply, steam heating, boilers and equipment, etc.

Bids desired until Apr. 19 by L. E. McGann, Comr. Pub. Wks., for furnishing and constructing caissons under foundations of administration building of Contagious Disease Hospital.

Bids desired until May 3 by State Bd. of Administration, Springfield (F. D. Whipp, Fiscal Superv.), for erecting a storeroom building at the Illinois Industrial Home for the Blind, Marshall Boule., Chicago. Jas. B. Dibelka, State Archt., 29 S. La Salle St., Chicago.

★**Moline, Ill.**—Contract for erecting Lutheran Hospital awarded to H. W. Horst of Rock Island at $36,376. Olof Z. Cervin, Archt., Rock Island.

★**Quincy, Ill.**—Contract for erecting Jefferson School awarded to Buerkin & Kaempen, at $67,552 for general construction, heating and ventilating to Best Bros. at $17,587 and electric light and power to Quincy Electrical Supply Co. at $1,087.

University City, Ill.—Plans being prepared by T. P. Barnett Co., St. Louis, Mo., for a 3-story and basement brick and terra cotta annex to Lenox Hall. Mrs. M. L. Thomas, Principal.

Portage, Wis.—Reported all bids received by Bldg. Com. for erecting the poor house have been rejected as being too high. New bids will soon be asked. Plans to be revised by Allen D. Conover, Madison.

Sheboygan, Wis. — H. J. Leverenz, Supt. of Schools, writes issue of bonds has been authorized for erection of new high school, but no architect has as yet been selected, nor has the kind of building been decided upon.

Watertown, Wis.—Plans for high school are to be prepared by Parkinson & Dockendorf of La Crosse. Cost $100,000.

Bonaparte, Ia.—Bids desired until May 6 by Independent School Dist. of Bonaparte for furnishing material, erecting and equipping a high and grade school. Underhill & Dean, Archts., Bryant Bldg., Kansas City, Mo.

Manley, Ia.—J. F. Schulte, Pres Bd. Educ., writes it is proposed to erect a 2-story brick school, 68 x 96 ft., to cost $30,000.

★**Manson, Ia.**—Contracts for erecting school awarded as follows: General contract to Carl Schlachter, Rockwell City, $29,600; wiring, H. R. Healy, Manson, $487; plumbing and heating, Thos. Rhinehart, Le Mars, $6,228.

★**Duluth, Minn.**—Contracts awarded Mar. 29 by Bd. of Educ. (Chas. A. Bronson, Clk.) for erecting Lincoln Junior high school, from plans of F. G. German, Exchange Bldg., as follows: General construction, Jacobson Bros., Duluth, $92,500; heating, ventilating and plumbing, American Htg. Co., $21,250; electrical work, F. O. Peterson, $4,112.

Milan, Minn.—Bids desired until May 4 by School Dist. No. 5 (H. C. Bloom, Clk.) for furnishing material and erecting a brick high school. C. E. Edwins, Archt., Northwestern Bldg., Minneapolis.

Northfield, Minn.—Bids reported desired until Apr. 27 by Patton, Holmes & Flinn, Archts., 8 S. Dearborn St., Chicago, Ill., and McKnight Bldg., Minneapolis, for erecting a boys' dormitory, 3 stories, attic and basement, 256 x 37 ft., for Carleton College, Northfield. Probable cost $100,000.

Independence, Kan.—G. H. Krienhagen, City Clk., writes that bids are desired about May 1 for erecting city hall, from plans of Rose & Peterson, of Kansas City, Kan.; cost about $38,000.

Lawrence, Kan.—Bids desired until Apr. 21 by Bd. Educ. (Julia McGrath, Clk.) for erecting 3 1-story and basement fireproof schools, including heating, plumbing and wiring. W. F. Gernandt, Archt., State Bank Bldg., Omaha, Neb.

★**Marysville, Kan.**—Contract awarded Apr. 7 by Bd. Educ. for erecting a 2-story and basement high school to W. A. Assenmacher Co., of Lincoln, Neb., at $41,212. N. P. Nielson, Archt., Topeka.

Granville, N. D.—Bids desired until Apr. 26 by Bd. Educ. (O. M. Erickson, Pres.) for erecting a brick school. Haxby & Gillespie, Archts., Fargo.

Grand Forks, N. D.—Bids desired until Apr. 27 by F. F. Burchard, Secy., Bd. Educ., Independent School Dist. No. 1, for erecting the first unit of a high school. W. J. Edwards, Archt., Grand Forks.

Aberdeen, S. D.—Bids reported desired until May 14 by State Bd. Regents, Pierre (I. D. Aldrich, Secy.), for new east wing and alterations to main building of central building of Northern Normal and Industrial School. J. W. Henry, Archt., Aberdeen.

★**Millbank, S. D.**—Contract for erecting brick and stone, 2½-story court house awarded to J. W. Bell, Minneapolis, Minn. Probable cost, including equipment, $100,000.

★**Miles City, Mont.**—Contract for erecting U. S. Post Office awarded to Hiram Lloyd Bldg. & Constr. Co., St. Louis, Mo., at $86,817.

Conway, Ark.—Trustees of Hendrix College have decided to erect a $60,000 dormitory and a gymnasium at the college.

Austin, Tex.—Plans for proposed court house are to be prepared by Harvey L. Page, San Antonio. An election is to be held soon to vote $500,000 bonds for this building.

Corpus Christi, Tex.—Bids desired until May 11 (extension of date from Apr. 19) by O. Wenderoth, Superv. Archt., Washington, D. C., for the construction, complete (including mechanical equipment, except elevator, and approaches) of U. S. Post Office and Courthouse.

Dallas, Tex.—Wm. B. Ittner of St. Louis is architect for the two high-school buildings and one grade school.

St. Paul Sanitarium is to be enlarged at a cost of $250,000. J. Edw. Overbeck, Archt., Dallas.

★**Galveston, Tex.**—Contract for erecting addition and improvements to Ball High School awarded to J. W. Zempter of Galveston at $53,296, including heating. A. J. Bellis, Archt., Galveston.

Wichita Falls, Tex.—Plans adopted by the City Council and the County Comrs. for a 2-story reinforced concrete joint hospital, to cost $34,000.

Mt. Vernon, Wash.—School Dist. No. 1 (C. B. Grace, Secy.), it is reported, intends erecting a $60,000 high school.

Co. Comrs. reported to be seeking a site on which to erect a $75,000 county hospital.

Pasco, Wash.—Co. Comrs. reported soon to select architect to prepare plans for a $50,000 hospital.

Seattle, Wash.—Site selected on which to erect high school for St. Edwards Parochial School. Cost $75,000. Bishop O'Dea may be able to give further information.

Bids desired about July 1 by Bd. of Regents, University of Washington, for erection of Home Economics Bldg., 2 stories of stone and brick, 150 x 100 ft., to cost about $125,000. Architects Bebb & Gould, of Seattle.

Plans for 3-story $50,000 County Juvenile Detention Home are to be prepared by Geo. F. Lawton, Alaska Bldg.

Tacoma, Wash.—School Bd. intends erecting a gymnasium at Stadium High School to cost $52,000. Heath & Gove, Archts., National Realty Bldg.

Grants Pass, Ore.—Bids reported desired until May 5 by County Commissioners for erecting courthouse; probable cost $150,000.

Portland, Ore.—During the coming year the following public buildings will be erected: Kennedy School, $45,000; unit of Franklin High School, $100,000; addition to Albina Homestead School, $24,000; one-story warehouse on Dock No. 1, $65,000; new fire station at 4th and Yamhill Sts., $30,000; auditorium, $600,000; detention home for women, $30,000; State hospital, $75,000; county hospital, $300,000.

Wallowa, Ore.—City Council is having plans prepared for a city hall which is contemplated.

Hawthorne, Cal.—Bids desired until Apr. 29 by Clerk School Trus. for erecting a grammar school on Ballona and Washington Aves. W. C. Pennell, Archt., Los Angeles.

Los Angeles, Cal.—Bids desired Apr. 22 by Bd. Educ. (Wm. A. Sheldon, Secy.) for erecting a brick and concrete school on Normandie Ave., also school on Micheltoreno St.

Norwalk, Cal.—Bids desired until May 4 by W. F. McClure, State Engr., Sacramento, for erecting a group of buildings at Norwalk State Hospital, including cottage for males, kitchen building, power house, etc.

Patton, Cal.—Bids desired until Apr. 27 by W. F. McClure, State Engr., Capitol, Sacramento, for erecting superintendent's residence, Southern California State Hospital, Patton.

San Fernando, Cal.—Bids desired until Apr. 24 by Union High School Dist. E. L. De Remer, Clk. Trus. for erecting a group of 3 buildings on San Fernando High School grounds. John C. Austin, Los Angeles, Archt.

★**San Francisco, Cal.**—Contract for the ornamental iron work for the new city hall awarded to Rudgear-Merle Co. at $98,850.

Navajo, Ariz.—Lowest bid opened by the Comr. Indian Affairs, Washington, D. C., for erecting an addition to the stone dormitory for girls at the Western Navajo Indian School, Arizona, was submitted by Hetzel-Winget Co., Los Angeles, Cal., at $25,250.

Salt Lake City, Utah.—L. P. Judd, Clk. Bd. Educ., writes bids desired about Apr. 25 for erecting 2-story, brick and concrete school, 65 x 131 ft., to cost $80,000. Architect, F. D. Rutherford, McIntyre Bldg., Salt Lake City.

Ontario.—The Legislature has appropriated $150,000 for construction at Prison Farm, Guelph; also a similar sum for Provincial Hospital for Insane at Whitby; $40,000 for purchase of land and erection of buildings at industrial farm at Burwash.

St. Catharines, Ont.—Bids desired until May 3 by A. E. Nicholson, Archt., 46 Queen St., to erect a collegiate institute here.

Toronto, Ont.—Bids desired until Apr. 26 by R. C. Desrochers, Secy. Dept. Pub. Wks., Ottawa, for alterations and addition to Postal Station "A."

Winnipeg, Man.—The Dominion Government at Ottawa, Ont., reported to have appropriated $50,000 for a drill hall at Winnipeg.

PRIVATE BUILDINGS.

Items Arranged Geographically

St. Johnsbury, Vt.—W. T. Towner of New York has prepared plans for a $50,000 edifice to be erected for the Grace Methodist Church to replace building destroyed by fire.

★**Allston, Mass.**—Contract awarded Mar. 11 by Densmore & Le Clear, Archts. and Engrs., 88 Broad St., Boston, for erecting 5-story and basement 30 x 160-ft. publishing building for Perry Mason Co., 201 Columbus Ave., Boston., to W. F. Kerns Co., Cambridgeport, Boston.

★**Boston, Mass.**—Contract awarded to New England Foundation Co., Inc., 70 Kilby St., Boston, for Simplex concrete piles for a theater for the Colonial Realty Co., 136 Massachusetts Ave., Boston.

★**New Bedford, Mass.**—Contract for erecting edifice for Church of Immaculate Conception awarded to Savoie Quarry & Constr. Co. of Fall River, to cost $30,000.

★**Albany, N. Y.**—Contract for erecting office building and freight shed for Hudson Navigation Co. awarded to Morris Kantrogitz, Albany Building; to be of brick 850 ft. long.

Binghamton, N. Y.—St. John the Evangelist R. C. Church contemplates erecting a church costing about $75,000. Rev. Jas. B. Green, Pastor.

Brooklyn, N. Y.—Reported Whitney Theatre Co. (A. Sterck, Pres., 26 Court St.) contemplates erecting an office, lodge and amusement building at Myrtle Ave. and Fresh Pond Road, adjoining the Whitney Theatre.

Plans completed by M. A. Canton, 373 Fulton St., for 4-story loft building to be erected at Atlantic Ave. and Fulton St., for Nass & Berg, 405 Van Siclen Ave. Cost about $50,000.

Reported plans being prepared by R. Thomas Short, 3 W. 29th St., New York, for moving picture theatre building to be erected at 1085 Flatbush Ave., by A. H. Schwartz, at a cost of $150,000.

★**Buffalo, N. Y.**—Knights of Columbus have awarded to John Lannen & Son, Prudential Bldg., contract for erecting 3-story and basement brick, stone and structural steel club house at 500 Delaware Ave., to cost $80,000. Max G. Bierel, German-American Bank Bldg., Archt.

Reported bids desired by Archt. Robt. A. Wallace, Builders' Exchange, for erecting a fireproof residence, tile, stucco and steel, with garage, on south shore of Lake Erie at 18 Mile Creek, for Henry P. Burgard, 1968 Fillmore Ave.; cost, including lighting and water plants, $50,000.

Fulton, N. Y.—Zion Episcopal Church (Rev. N. J. Peters, Pastor) intends erecting a church and parsonage costing $50,000.

★**Goshen, N. Y.**—Contract for erecting residence, garage and farm buildings for Mrs. E. B. Tweedy, on Chester Road, and to cost $100,000, has been awarded to Miller Reed Co., 103 Park Ave., New York.

Middle Hope, N. Y.—N. Serracino, 1170 Bway., New York, has been engaged to prepare plans and specifications for a 2-story country residence to be built in Middle Hope for Mrs. T. Carobine.

Mt. Vernon, N. Y.—Plans being prepared by McKenzie, Voorhees & Gmelin, 1123 Bway., New York, for a 3-story telephone building to be erected at 35 S. 6th Ave. for N. Y. Telephone Co., 15 Dey St., New York; cost $50,000.

New York, N. Y.—Plans filed for following buildings: 5-story brick tenement at 154th St. and Amsterdam Ave., for West 154th St. Co.; cost, $40,000; Saml. Cohen, Archt., 503 5th Ave. Two-story brick store, loft and moving picture theatre at 185th St. and St. Nicholas Ave., for Life Amusement Co.; cost, $60,000; Geo. Fred. Pelham, Archt., 30 E. 42d St. Three 5-story brick tenements at Bryant Ave. and 165th St., for Mack Constr. Co.; cost, $105,000; Kreymborg Architectural Co., Archts., 1029 E. 163d St. Six-story brick tenement at Washington Ave. and 172d St., for Jonas Weil; cost, $45,000; Chas. B. Meyers, 1 Union Sq., Archt. Two 5-story brick tenements at Vyse Ave. and Home St., for Wm. Sinnott; cost, $100,000; Kreymborg Architectural Co., Archts., 1029 E. 163d St. Five-story brick tenement at 184th St. and Grand Concourse, for 173d St. Improvement Co.; cost, $80,000; Keymborg Architectural Co., Archts., 1029 E. 163d St.

★Contract awarded to Chas. A. Cowen & Co., 1123 Bway., for erecting 16-story store and loft building at Bway. and 26th St., for estate of Fredk. Ayer; Maynicke & Franke, Archts., 25 E. 26th St. Patterson Bros., 1182 Bway., Consulting Steam and Electrical Engrs.

Reported Harry & Jos. Falk, 3785 Bway., have had plans prepared by Geo. & Edw. Blum, 505 5th Ave., for a 12-story store and loft building which they contemplate erecting at 5th Ave. and 31st St.

Reported estimates on general contract for the Church St. Vincent Ferrer, at Lexington Ave. and 66th St., are being received by Bertram S. Goodhue, Archt., 2 W. 47th St. New building is to be of limestone and New York edgestone, and is to cost approximately $500,000.

Reported plans completed and bids being received by Herman Lee Meader, Archt., 3 W. 32d St., for erecting a 12-story loft and office building at 138 W. 32d St., for the Pennlane Realty Co., 165 Bway.

Plans being prepared by Summerfeld & Steckler, 31 Union Sq., for three 5-story apartment houses to be erected at 192d St. and St. Nicholas Ave., for the Epros Realty Corporation; cost, $100,000.

Plans completed by Gronenberg & Leuchtag, 303 5th Ave., for two 6-story apartment houses at Amsterdam Ave. and 150th St., for Oak Constr. Co.; cost about $50,000 each.

Susquehanna, N. Y.—J. J. Ryan, Manager of the Hogan Opera House, it is reported, is interested in the erection of a new theatre costing $40,000.

★**Waterbury, L. I., N. Y.**—Contract awarded to Central Bldg. Co., Worcester, Mass., for erecting a residence, stable and garage for Victor Morawetz, to cost $100,000. Delano & Aldrich, New York, Archts.

Jersey City, N. J.—Plans being prepared by Maximillian Zipkes, 405 Lexington Ave., New York, for a 5-story apartment house to be erected at Glenwood Ave. and the Boule. for Zerman Realty & Constr. Co.; cost about $70,000.

★**Montclair, N. J.**—Contract for erecting 1-story bank building at 493 Bloomfield Ave., for Essex Natl. Bank, awarded to A. P. Clark, 264 Claremont Ave. Cost about $45,000. Holmes & Winslow, Archts., 103 Park Ave., New York.

★**Newark, N. J.**—Contract for erecting 8-story fireproof brick and stone theatre and office building at 114 Market St. for F. F. Proctor awarded to F. T. Ley & Co., 30 E. 42d St., New York. Cost about $300,000.

West New York, N. J.—Plans being prepared by Carl Goldberg, 437 Bway., Bayonne, for a 4-story apartment house to be erected at Hudson Ave. and 12th St., for Weisberg & Cadel, Hudson Ave. and 11th St. Cost about $100,000.

Ardmore, Pa.—Plans prepared by Henry L. Reinhold, Philadelphia, for a Masonic Temple, to cost $55,000.

New Castle, Pa.—Mahoning & Shenango Ry. Co. intends erecting on Washington St. a 3-story brick combination passenger and freight station and subpower station, costing $65,000.

Philadelphia, Pa.—Plans completed by Edgar V. Seeler, Real Estate Trust Bldg., for a 3-story brick addition to the School of Industrial Art of the Pennsylvania Museum, Broad and Pine Sts.; cost $50,000.

★Contracts have been awarded as follows to the Simplex Concrete Pile Co., Tacony, Philadelphia, Pa., for Simplex concrete piles in the following buildings: Passenger station, Pennsylvania R.R., Rahway, N. J.; office building No. 3, Victor Talking Machine Co., Camden, N. J.; condenser house, Barrett Mfg. Co., Frankford, Philadelphia; Colored High School, No. 174, First St., Washington, D. C.

Plans being prepared by A. A. Richter of Reading for a stone and brick church and Sunday school building which Muhlemberg Lutheran Congregation of Lagon, Philadelphia, will erect at 13th and Ruscomb Sts., to cost $60,000.

★**Pittsburgh, Pa.**—Reported contract for erecting the Syria Temple on Grant Boule. awarded to Golden & Crick, Pittsburgh. Building complete is to cost $425,000. C. J. Rieger, Archt., Germania Bank Bldg.

★**Washington, Pa.**—Reported contract for erecting the Masonic Temple awarded to Jacob U. Bumgarner, Washington, at about $50,000. John W. Vester, Archt., Washington, Pa.

Baltimore, Md. — Reported working plans being prepared by Theo. Wells Pietsch, Baltimore, for the Methodist Church to be erected on Charles St. Boule and University Parkway, to be 1-story marble, 108x88 ft.; another building 1-story 64x80 ft., and also a parsonage 2½ story 64x50 ft., are to be erected in connection with the church and the total cost is to be about $200,000.

Washington, D. C.—Plans prepared by A. H. Sonnemann, 1334 H St. N. W., for a 4-story fireproof apartment house to be erected at 20th St. and Florida Ave., to cost $45,000.

Rocky Mount, N. C.—Elks have secured a site on which to erect a $30,000 lodge building.

★*Items marked thus give the names of parties awarded contracts.*

Charleston, S. C.—Bids desired until May 10 by Walker & Burden, Archts., 42 Broad St., Charleston, to erect a church and home for Seamen at Market and W. Bay Sts. The buildings will be of brick and hollow tile, supported on pile and concrete foundation and are to cost about $30,000.

Macon, Ga.—The Shriners have selected the plans of Happ & Shelberton, Macon, for the temple to be erected on 2d and Ocmulgee Sts., to cost $50,000.

Clermont, Fla.—Plans being prepared for a 50-room hotel to be erected here. Scott Davenport Co., Mgrs. of the Merchants Hotel in Tampa, Fla., may be able to give further information.

Birmingham, Ala.—Plans have been prepared by Miller & Martin, Title Guarantee Bldg., for a picture theatre which T. S. Abernathy and John Calman intend erecting on 2d Ave and 19th St., at a cost of about $40,000.

Reported A. R. Boone intends erecting in a $50,000 moving picture theatre at 1917 2d Ave.

Reported plans being prepared by David O. Whildin, Title Guarantee Bldg., for a 3-story hotel and store building at 5th Ave. and 19th St., for the Ingram Constantine estate; cost $50,000.

Alexandria, La.—Nichol, Langford & Johnston, general contractors, Realty Bldg., Louisville, Ky., have contract for erection of a bank, store and office building at Alexandria, and want bids on construction of reinforced concrete frame complete.

Alliance, O.—Plans of C. C. & A. L. Thayer, of New Castle, Pa., accepted for the Masonic Temple, to cost $40,000, which Conrad Lodge No. 271 will erect.

Cincinnati, O. — The Eagles propose erecting an addition to their club house on Walnut St., to cost $40,000.

Cleveland, O.—Al Koran Temple, of the Mystic Shrine, contemplates erecting a temple at 3515 Euclid Ave., costing $300,000.

A. F. Janowitz, Permanent Bldg., is preparing plans for a $30,000 commercial and apartment house to be erected on Superior Ave. N. E. and E. 125th St.

Chas. S. Howe, Pres. Case School of Applied Science, reported considering the erection of a school of architecture, costing $500,000.

Reported erecting a 300-room addition to Hotel Statler is under consideration by E. M. Statler, owner.

A permit has been issued to Westinghouse Elec. & Mfg. Co. for a 7-story brick, concrete and steel warehouse to be erected at 1196 W. 58th St., and cost $1,000,000. Prach & Perrin, Pittsburgh, Pa., Archts.

Plans prepared by Geo. B. Post & Sons, 1111 Schofield Bldg., for a theatre and store building to be erected by E. E. Mandelbaum on Euclid Ave., adjoining the Hotel Statler.

Plans prepared by H. T. Jeffery for twin apartment houses to be 3-story brick and cost $80,000, which G. W. Hale, 340 Leader News Bldg., will erect at 1890 E. 97th St.

H. O. Oster, Cleveland, reported to be taking steps to erect a dance hall and business building on E. 105th St. and Euclid Ave., to cost $50,000.

Columbus, O.—Preliminary plans being prepared for the St. Leo R. C. Church, 1-story reinforced concrete, steel, brick and stone, to be erected on Stanford St., at a cost of $35,000.

The East Broad St. Presbyterian Church intends erecting a $40,000 church house adjoining the church proper.

Plans about completed for the 7-story building which the Peters Realty Co. will erect on E. Gay St., at a cost of $100,000.

★**Findlay, O.**—Contract for erecting the Elks' lodge building awarded to J. J. Bolinger of Toledo, at $56,167.

Galion, O.—The Elks propose erecting a 4-story brick and stone lodge building.

★**Westerville, O.** — Contract awarded Mar. 25 for erecting edifice for United Brethren Congregation to D. D. Livingston, of Columbus, at $44,500. John W. Finch, M. D., Secy. Bd. Trustees.

Detroit, Mich. — Plans prepared by Rogers Bonnah & Chaffee, Detroit, for a 6-story reinforced concrete and terra cotta store and office building to be erected at 250 Woodward Ave. for Morris Friedberg.

★Contract awarded by Smith, Hinchman & Grylls, Archts., Washington Arcade, for erecting a 1-story and basement, 172 x 220 ft., Central Market building to Vinton Co., Detroit. Probable cost $50,000.

Reported Detroit City Gas Co., Washington Boule. and Clifford St., intends erecting a 5 or 6-story building on Bagley Ave. and Clifford St.

Hancock, Mich.—Masons reported to be considering the erection of a temple costing $50,000.

Bloomington, Ill.—Commercial Club and citizens are reported to be considering the erection of a public auditorium costing $60,000.

Clarence Irwin intends erecting a $50,000 theatre on E. Jefferson St.

Chicago, Ill.—Reported plans being prepared by J. E. O. Pridmore for an 8-story family hotel which it is proposed erecting at foot of Foster St. and costing $175,000.

Mattoon, Ill.—Reported plans for 2-story stone union station, to cost $100,000 and erected by Illinois Central and Big Four Railroad Companies, have been approved. A. S. Baldwin, Ch. Engr., Illinois Central R.R., Chicago.

Cedar Rapids, Ia.—The Western Grocer Co. intends erecting on S. First St. and 4th Ave. a 5-story office and warehouse building costing $75,000.

Des Moines, Ia.—Highland Park Presbyterian Church intends erecting a $30,000 edifice.

Ft. Dodge, Ia.—Ft. Dodge, Des Moines & Southern R. R. Co. (C. H. Crooks, Gen. Mgr., Boone) plans erecting a terminal and warehouse costing $100,000.

Vinton, Ia.—Baptist Society preparing plans for new church; estimated cost $25,000.

Methodist Society will erect a new church as soon as plans are ready.

Mike Ford of Cedar Rapids is reported interested in the Palace Theatre Co., which intends erecting a theatre here costing $30,000.

Lake Benton, Minn.—Bids desired until Apr. 26 by Bd. Dirs., Farmers' Co-operative Creamery Assoc. (Jorgen Wind, Secy.) for erecting a creamery building. Richd. W. Swanson, Archt., Dassel.

Moorehead, Minn. — Bids reported desired until Apr. 29 by Rev. M. Anderson, Norwegian Lutheran Church, for erecting a Sunday school and church, 114 x 150 ft. Probable cost $35,000. Alban & Lockhart, Archt., Endicott Bldg., St. Paul.

St. Paul, Minn.—McMurray & Co. will erect a 5-story concrete building at 9th and Cedar Sts., costing $40,000.

St. Mary's Episcopal Church intends erecting on Howell and Laurel Aves. a church costing $40,000. Rev. John Boden, Rector.

Starbuck, Minn.—Bids desired until Apr. 28 by Bd. Directors, Starbuck Creamery Co. (Edw. Ingebretson, Secy.) for erecting a 1-story creamery. O. E. Larson, Archt., Starbuck.

Waterville, Minn.—Bids desired until May 1 by the Waterville Creamery Assoc. (W. S. Spoors, Secy.) for erecting a creamery. Richd. W. Swanson, Archt., Dassel.

★**Valley City, N. D.**—Contract for erecting Congregational church awarded to W. J. Curren, Valley City, at $32,500; heating, plumbing, ventilating, etc., to Valley City Plumb. & Htg. Co., at $5,210.

Billings, Mont.—Reported Dedrick & Piper, Billings, are preparing plans for the Presbyterian Church, to cost $40,000.

Waco, Tex.—Rotan Realty Co. will erect at Austin and 6th Sts. a 2-story building costing $40,000.

North Yakima, Wash.—Reported plans being prepared for an apartment house which N. A. Henderson, North Yakima, intends erecting, at a cost of $100,000.

Seattle, Wash.—Plans reported completed by A. Robinson, Orpheum Theatre Bldg., for a 3-story and basement brick and mill constructed apartment house at Queen Anne Ave. and Aloha St., for Brown & Cassels; cost $50,000.

Plans being prepared by Somervell & Putnam, White Bldg., for an apartment house which Lawrence Colman, Colman Bldg., will erect, at a cost of $100,000.

Plans being prepared by Bebb & Gould, Denny Bldg., for a 9-story reinforced concrete and steel office building for the Times Printing Co., to be erected on 4th Ave. and Olive St., at a cost of $600,000.

Plans being prepared by Bebb & Gould, Denny Bldg., for a 3 or 5-story apartment house which Harry W. Treat will erect on 3d Ave. and Blanchard St.

★Contract awarded to E. J. Rounds Constr. Co., Globe Bldg., for erecting the 3-story fireproof reinforced concrete and terra cotta business building on First Ave. and Spring St.; cost $50,000. C. H. Bebb, Archt., Denny Bldg.

Seattle, Wash.—Reported bids desired by B. Marcus Priteca, Archt., Empire Bldg., for erecting a 110x120 ft. 70 ft. high reinforced concrete and steel moving picture theatre building for C. D. Simpson, at 5th Ave. and Pike St., to cost $350,000.

Spokane, Wash.—Plans prepared by Albert Held, Realty Bldg., for alteration to Exchange National Bank; cost $40,000.

Tacoma, Wash. — Reported Wallace Bldg., recently destroyed by fire, is to be rebuilt. F. P. Haskell, Jr., Agent, National Realty Bldg.

Tacoma, Wash.—Reported Stone Fisher Co. will erect 3-story stone and fireproof department store at 11th and Market Sts. to cost $150,000. Geo. H. Stone, Mgr.

Reported a 4-story reinforced concrete business block is to be erected at S. 11th and D Streets. by G. M. Savage and W. R. Nichols, owners of the site. Cost $100,000.

Tacoma, Wash.—Reported the Oregon-Washington Railroad & Navigation Co. (J. R. Holman, Ch. Engr., Portland, Ore.) will spend about $50,000 in completing freight house and constructing waterway bridge of steel and concrete.

★**Klamath, Falls, Ore.**—Reported contract for erecting 2-story 50x100 ft. reinforced concrete club house for the Elks awarded to LeDoux & LeDoux, 189 Simpson St., Portland, at about $50,000. Houghtaling & Dougan, Archts., Henry Bldg., Portland.

Portland, Ore.—Reported bids desired until about Apr. 20 by Emil Schacht & Son, Archts., Commonwealth Bldg., for erecting a 1-story fireproof 50x155 ft. building on Ankeny, Pine, 6th and 5th Sts. for Russel & Blyth and Dant & Russell Co. Cost about $45,000.

Salem, Ore.—Plans being prepared for a $50,000 apartment house which Chas. McNary and Geo. Ridgers, both of Salem, propose erecting on Court and Cottage Sts.

★**San Francisco, Cal.**—Contract reported awarded to Sound Constr. & Eng. Co., Lowman Bldg., Seattle, Wash., for erecting a 13-story reinforced concrete and brick building, 245 x 385 ft., on Bryant St., for Seattle Brewing & Malting Co., Georgetown. Cost $560,000. Carl Siebrand, Arcade Bldg., Seattle, Archt.

Plans completed by Shea and Lofquist, 550 Montgomery St., for the St. Monica R. C. Church to be erected on Geary St. and 23d Ave., to be reinforced concrete, steel frame and tile. Rev. Edw. J. Doran, Pastor.

NEW INDUSTRIAL PLANTS.

See also "Private Buildings."
Items Arranged Geographically

Sanford, Me.—Sanford Mills intends erecting a 4-story factory as an addition to their plant.

Everett, Mass.—The Argo Tile & Pottery Co. intends erecting a 2-story brick factory on Spring St.

Brooklyn, N. Y.—Plans being prepared by Wm. Higginson, 13 Park Row, New York, for 10-story fireproof reinforced concrete factory to be erected at Bway. and Wythe St., for Gretsch Mfg. Co., 110 S. 4th St.; cost, $550,000.

★**Buffalo, N. Y.**—Contract for erecting 11 story 80x80 ft. warehouse for W. H. Walker & Co., 39 Franklin St., awarded to Turner Constr. Co., Prudential Bldg., Buffalo. Building is to be reinforced concrete, structural steel interior, columns. Lockwood, Greene & Co., Boston, Mass., Engrs.

★Contract awarded to Turner Constr. Co., Prudential Bldg., Buffalo, for erecting a 4-story and basement, 80 x 200 ft., reinforced concrete flat slab building for Buffalo Meter Co. Lockwood, Greene & Co., Boston, Mass., Engrs.

Plans completed and reported bids desired by Architect Geo. Schantz, Ellicott Sq. Bldg., for 2-story and basement cooler building 78 x 78 ft., to be erected by C. Klink Packing Co. at Depot St. and Erie R. R.; cost, $20,000.

Jamestown, N. Y.—Plans being prepared by Mason & McNeil for a 4-story and basement addition 40 x 80 ft. to the plant of the Anchor Furniture Co., on Holmes St.

Hoboken, N. J.—Plans being prepared by Franklin B. Small, 265 Bway., New York, for a 6-story factory to be erected for American Lead Pencil Co., at a cost of $40,000.

Leroy, N. Y.—Leroy Salt Co. will erect a 3-story 75 x 80-ft. refinery according to plans by Geo. Schantz, Ellicott Sq. Bldg., Buffalo.

★**Hoboken, N. J.**—Contract awarded to Turner Constr. Co., 11 Bway., New York, N. Y., for erecting a 9-story and basement reinforced concrete, 32x68 ft. factory for American Lead Pencil Co.

★**Jersey City, N. J.**—Contract awarded by Colgate & Co. to Turner Constr. Co., 11 Bway., New York, for erecting an 8-story reinforced concrete warehouse 96 x 200 ft., at Greene and York Sts.

Middletown, Pa.—A 4-story pressed brick 42x88 ft. building is to be erected by the Kreider Shoe Co.

North East, Pa.—Niagara Film Co. (W. B. Brigham, Gen. Mgr. Erie), is reported to be planning a moving picture manufacturing film plant here. Cost at least $50,000.

Birmingham, Ala.—Birmingham Ice Factory will erect a cold storage plant on Ave. E and 22d St. to cost $75,000. J. Frank Rushton is interested. Brick, reinforced concrete and steel will be used in construction.

Fairfield, Ala.—Tennessee Coal & Iron Co. (Geo. G. Crawford, Birmingham, Pres.) reported to be planning erecting a benzol plant here having a capacity of 13,000 gal. every 24 hrs. Probable cost, $400,000.

Phoenix, Ala.—J. T. Bland, of Phoenix, reported interested in company which intends erecting a cotton mill here.

Woodward, Ala.—Reported Edison Co., East Orange, N. J., intends erecting a benzol plant here having a daily capacity of 2000 gal. Probable cost, $300,000.

Portsmouth, Va.—Reported machine shops and blacksmith department of the Seaboard Air Line (W. D. Faucette, Ch. Engr., Norfolk, Va.) have been destroyed by fire.

Dayton, O.—Dayton Eng. Laboratories Co., manufacturers of starters for automobiles, intends erecting a 6-story building 500 ft. long and 66 ft. wide. E. A. Deeds, Pres.

★**Toledo, O.** — Contract awarded by Willys-Overland Co., Toledo, automobile manufacturers, to the MacArthur Concrete Pile & Foundation Co., 11 Pine St., New York, for foundations for new assembling plant and power house; about 1000 pedestal concrete piles will be driven. Mills, Rhines, Bellman & Nordhoff, Archts., Toledo.

Warren, O.—Warren Tank & Boiler Co. intends erecting an addition, 180x850 ft., to their boiler plant.

Bloomington, Ind.—Plans accepted by Nurre Mirror Plate Mfg. Co. for erecting an addition to the plant in this city costing $50,000. J. N. Nurre, Pres.

Kalamazoo, Mich.—Kalamazoo Tank & Silo Co. intends erecting an office and factory building 44x70 ft. brick and fireproof.

Brainard, Neb.—Farmers Elevator Co. intends erecting an elevator costing $25,000.

Billings, Mont.—The Barnsley Bros. Cutlery Co. of Monett, Mo., intends erecting a brick factory 50x100 ft. in this city and will remove their plant here.

Tacoma, Wash.—Reported S. Shibagaki, Secy. Tacoma Japanese Assoc., intends erecting a knitting mill here to make a specialty of hosiery; cost, $40,000.

Roseburg, Ore.—See "Railroads."

Salem, Ore.—Reported plant of Drager Fruit Co. recently destroyed by fire, is to be rebuilt.

★**San Francisco, Cal.**—Reported contract for erecting a brewing plant for the Rainier Brewing & Malting Co. awarded to Sound Constr. & Eng Co., Seattle, Wash., at about $538,913. Jones & Laughlin, of Pittsburgh, Pa., reported to have contract for steel work.

MISCELLANEOUS.

See also "Hydraulic Construction and River Improvements."
Items Arranged Geographically

Sprinkler System—Boston, Mass.—Bids desired until May 1 at the Bureau Yards and Docks, Navy Dept., Washington, D. C. (H. R. Stanford, Ch.), for automatic sprinkler system for pattern shop building No. 42-E, Navy Yard, Boston, as per Spec. 2153.

Steps and Walls—Boston, Mass.—Bids desired until April 20 by L. K. Rourke, Comr. Pub. Wks., Boston, for artificial stone steps and walls in Convent Path from Breed to Gladstone Sts.

Park Improvements—Fall River, Mass.—Bids desired until 4 P. M., Apr. 15, by Bd. Park Comrs. (M. A. McClarence, Chmn.) for addition to Greenhouse Range at Oak Grove Cemetery.

Fire Escapes—Blackwell's Island, N. Y.—Bids desired until Apr. 20 by K. M. Davis, Comr. of Correction, Municipal Bldg., New York City, to furnish and install fire escapes, etc., at Workhouse, Blackwell's Island.

Fences for Water Board—New York, N. Y.—Bids desired until May 4 by Bd. Water Supply, Municipal Bldg., New York, for Contract 143, furnishing and erecting about 15 miles of wire fence, with concrete posts and short lengths of concrete and wood guard rails., etc., at Ashokan reservoir, in towns of Olive, Marbletown and Hurley, Ulster County, advertised in Engineering Record.

Hardware for College—Syracuse, N. Y.—Bids desired until Apr. 22 by Dr. Hugh P. Baker, Dean, for furnishing finished hardware for College of Forestry Building, Syracuse Univ., advertised in Engineering Record.

★**Parkway Work—Boston, Mass.**—Following are 4 lowest bids opened Mar. 22 by Metropolitan Park Comn. (John R. Rablin, Engr.) for building to subgrade Furnace Brook Parkway, from Quincy Shore Reservation to Hancock St., Quincy; (a) John Cashman & Sons Co., Boston (awarded contract); (b) Perini Constr. Co., Ashland; (c) Jas. H. Fannon, Somerville; (d) Rowe Contr. Co., Boston:

	(a)	(b)	(c)	(d)
40,000 cu. yds. earth grading	$0.23	$0.37	$0.30	$0.30
100,000 cu. yds. fill material to be furnished	.48	.41	.51	.47
15 M ft. 2-in. spruce plank	.50	.40	.40	.40
5,000 sq. yds. riprap pavement	2.15	2.12	1.25	2.25
Totals	$63,700	$67,000	$69,650	$70,850

★*Items marked thus give the names of parties awarded contracts.*

Retaining Wall — Wilkesbarre, Pa.—Bids desired until Apr. 30 at City Clerk's office, to furnish material and construct a concrete retaining wall along Solomon's Creek between Franklin and Vulcan Sts. B. K. Finch, City Engr.

Sprinkler System—Augusta, Ga.—Bids desired until Apr. 20 at office of Commanding Officer, Augusta Arsenal, Augusta, to furnish and install an automatic sprinkler system in Storehouse B.

Scows — Louisville, Ky.—Bids desired until May 13 by Maj. J. C. Oakes, Corps Engrs., U. S. A., Louisville, Ky., for 2 steel dump scows, advertised in Engineering Record.

Gas Plant—Kalamazoo, Mich.—Citizens voted Apr. 5 to issue $975,000 bonds for construction of a municipal gas plant.

Steel Trestle, Recreation Building, Conduit, Etc. — Chicago, Ill. — Bids were opened Apr. 12 by Harbor and Subway Comn. (W. O. Johnson, Secy) for work on Pier 2, Harbor Dist. No. 1, as follows:

★Constructing steel trestle and loading platform: Awarded to Ketler-Elliott Co., Chicago, at $20,700. Next 3 lowest bids: A. Bollers & Sons, $22,000; Chaney Archbald, $22,100; L. K. Sherman Co., $22,899.

Recreation building and shelter: Four lowest bidders: Paschon Bros., $415,000; John Griffith & Sons Co., $416,000; Wieboldt Constr. Co., $426,000; E. L. Scheidenhelm, $436,800.

Electrical conduit, wiring and equipment: Four lowest bidders: Mayberry Electric Co., $49,700; A. L. Wilmersford Co., $52,488; Cuthbert Electric & Mfg. Co., $53,911; Pierce Electric Co., $54,000.

Boilers—Stanton, Ill.—Bids desired until Apr. 19 by H. W. Fritz, City Clk., to furnish and install 2 horizontal high-pressure fire-tube boilers, including fixtures.

★**Sprinkler System — Seattle, Wash.**—Contract awarded Mar. 31 by Port of Seattle Comn., J. R. West, Ch. Engr., for installing sprinkler system in freight shed Smiths Cove Improvement, to Rockwood Sprinkler Co. of Seattle, at $6,495.

Derrick and Hoist—Seattle, Wash.—Bids reported desired until Apr. 28 by Port of Seattle Comn. for 100 ton Shear leg derrick and an electric hoist for same. Cost about $50,000. C. E. Remsberg, Central Bldg., Secy.

Insulation in Cold Storage Building—Seattle, Wash.—Bids reported desired until Apr. 28 by Port of Seattle Comn. for insulation in 7-story reinforced concrete cold storage building. Cost of insulation estimated at $125,000.

Power Plant—Tacoma, Wash.—It is reported that the Puget Sound Electro-Manganese Co., of Tacoma, which owns and is developing large mineral claims in Olympic Peninsula, near Port Townsend, contemplates construction of a 100,000-hp. power plant on Snohomish River, and installation of 10 additional electric furnaces in its smelter in Tacoma, transmission lines, etc.

Concrete Snow Sheds—Tye, Wash.—It is reported that the Great Northern R.R. Co. (P. H. McFadden, Asst. Engr., Seattle) will construct 1200 ft. of concrete snow sheds between Tye and Embryo before Oct. 1; approximately $250,000 has been appropriated for the improvement. Work will include 1000 M ft. Washington lumber, 25,000 cu. yds. concrete. On the side toward mountain a solid concrete bulkhead will be constructed with a sloping concrete roof built over tracks.

★**Piling and Decking—New Westminster, B. C.**—Contract awarded by City Council for piling and decking new market site on 10th St., to Dominion Constr. Co., New Westminster, at $22,053.

Pier Shed—Panama.—Bids desired until May 3 by Maj. F. C. Boggs, Genl. Purchasing Officer, Panama Canal, Washington, D. C., to furnish and erect structural steel for shed on Pier No. 18, Balboa Terminal, according to Circular No. 916.

Proposals

For Proposals Advertised see Pages 41, 42, 43 and 44.

WATERWORKS.

Bids Close.		See Eng. Record.
Apr. 20.	Water Wks., Fordyce, Neb.	Apr. 3
Apr. 20.	C.-I. Pipe, Sacramento, Cal. Adv. Mar. 27, Apr. 3.	Mar. 27
Apr. 20.	Reservoir, Fostoria, O.	Apr. 10
Apr. 20.	Gate Valves, Etc., Toledo, O.	Apr. 17
Apr. 21.	Pump. Sta. Equip., Durham, N. C. Adv. Mar. 27 to Apr. 10.	Mar. 27
Apr. 21.	Water Wks. Improv., Durham, N. C. Adv. Mar. 27 to Apr. 10.	Mar. 27
Apr. 21.	Mains, Lemmon, S. D.	Apr. 10
Apr. 22.	Steel Wk. for Shafts for Tunnel, Cleveland, O.	Apr. 17
Apr. 27.	System, North Gates, N. Y. Adv. Apr. 17.	Apr. 17
Apr. 27.	Water Wks., Schoolcraft, Mich.	Apr. 17
Apr. 29.	Mule Drive at Pump Sta., Philadelphia, Pa. Adv. Apr. 17.	Apr. 17
Apr. 30.	Filter Unit, Reading, Pa. Adv. Apr. 17.	Apr. 17
May 1.	Improvements, Laurel, Md. Adv. Apr. 10, 17.	Apr. 10
May 1.	System, for Cemetery, Crow Agency, Mont.	Apr. 10
May 4.	Pipe, Washington, D. C.	Apr. 17
May 5.	Centrifugal Pump, Kansas City, Mo. Adv. Mar. 20 to Apr. 17.	Mar. 20
May 15.	Pumping Station, Binghamton, N. Y. Adv. Apr. 3 to 17.	Apr. 3
May 15.	System at Naval Radio Sta., San Diego, Cal.	Apr. 17

SEWERAGE AND SEWAGE DISPOSAL.

Apr. 20.	Columbus, O.	Apr. 10
Apr. 20.	Gloversville, N. Y. Adv. Apr. 10.	Apr. 10
Apr. 21.	Washington, D. C. Adv. Apr. 10.	Apr. 10
Apr. 21.	Brooklyn, N. Y.	Apr. 17
Apr. 21.	Baltimore, Md.	Apr. 17
Apr. 22.	Cleveland, O.	Apr. 17
Apr. 20.	Boston, Mass.	Apr. 17
Apr. 22.	Brunswick, Mo.	Apr. 17
Apr. 23.	Kenosha, Wis.	Apr. 10
Apr. 24.	Little Rock, Ark.	Apr. 3
Apr. 26.	Lewiston, Idaho	Apr. 10
Apr. 27.	Macon, Ga.	Apr. 10
Apr. 28.	Clinton, S. C.	Apr. 3
Apr. 29.	Philadelphia, Pa. Adv. Apr. 17.	Apr. 17
May 25.	Wilkesbarre, Pa. Adv. Apr. 17.	Apr. 17
Apr. 30.	Billings, Mont.	Apr. 10
Apr. 30.	Reading, Pa. Adv. Apr. 17.	Apr. 17
Apr. 30.	Tripoli, Ia.	Apr. 17
Apr. 30.	Great Neck Station, N. Y. Adv. Apr. 17.	Apr. 17
Apr. 30.	Yorkville, N. Y.	Apr. 17
May 1.	Laurel, Md. Adv. Apr. 10, 17.	Apr. 10
May 3.	Indiana, Pa.	Apr. 17
May 3.	Jewell Junction, Ia.	Apr. 17
May 7.	American Falls, Idaho	Apr. 17
May 15.	San Diego, Cal.	Apr. 17

BRIDGES.

Apr. 20.	Illinois	Apr. 10
Apr. 20.	Le Mars, Ia.	Apr. 17
Apr. 21.	Goshen, Ala.	Apr. 3
Apr. 21.	Crookston, Minn.	Apr. 10
Apr. 21.	Red Wing, Minn.	Apr. 17
Apr. 22.	Illinois	Apr. 10
Apr. 22.	Suffolk, Va.	Apr. 17
Apr. 24.	Tiffin, O.	Apr. 10
Apr. 26.	Circleville, O.	Apr. 3
Apr. 26.	Portland, Ore.	Apr. 17
Apr. 26.	Marshalltown, Ia.	Apr. 17
Apr. 26.	Reading, Pa.	Apr. 17
Apr. 27.	Leitchfield, Ky.	Mar. 27
Apr. 27.	Moorhead, Minn.	Apr. 17
Apr. 27.	Gettysburg, Pa.	Apr. 17
Apr. 28.	Akron, O.	Apr. 17
Apr. 29.	Philadelphia, Pa. Adv. Apr. 17.	Apr. 17
Apr. 29.	Bemidji, Minn.	Apr. 17
Apr. 29.	Austin, Minn.	Apr. 17
Apr. 30.	Fremont, O.	Apr. 17
Apr. 30.	Toledo, O.	Apr. 17
May 1.	Columbus, O.	Apr. 10
May 1.	Tacoma, Wash.	Apr. 17
May 3.	Media, Pa. Adv. Apr. 17.	Apr. 17
May 3.	Hamlin, W. Va.	Apr. 17
May 3.	Cobleskill, N. Y. Adv. Apr. 17.	Apr. 17
May 3.	Natchitoches, La.	Apr. 17
May 4.	Sea Isle City, N. J. Adv. Apr. 10, 17.	Apr. 10
May 4.	Northampton, Mass.	Apr. 17
May 5.	Canton, N. Y. Adv. Apr. 17.	Apr. 17
May 7.	Dayton, O.	Apr. 17
May 10.	Jasper, Ala.	Apr. 17

PAVING AND ROADS.

Apr. 19.	Connecticut. Adv. Apr. 17.	Apr. 10
Apr. 19.	Connecticut Adv. Apr. 17.	Apr. 17
Apr. 20.	Albany, N. Y. Adv. Apr. 3 to 17.	Apr. 3
Apr. 20.	Redmond, Wash.	Apr. 3
Apr. 20.	Greenwich, Conn. Adv. Apr. 10, 17.	Apr. 10
Apr. 20.	Lancaster, S. C.	Apr. 10
Apr. 20.	Trenton, N. J.	Apr. 10
Apr. 20.	Seattle, Wash.	Apr. 10
Apr. 20.	Columbus, O.	Apr. 10
Apr. 20.	Jersey City, N. J.	Apr. 10
Apr. 20.	Gloversville, N. Y. Adv. Apr. 10.	Apr. 10
Apr. 20.	Massachusetts	Apr. 17
Apr. 20.	New Brighton, N. Y.	Apr. 17
Apr. 20.	San Bernardino, Cal.	Apr. 17
Apr. 20.	Buffalo, N. Y.	Apr. 17
Apr. 20.	Jackson, Miss.	Apr. 17
Apr. 20.	Saginaw, Mich.	Apr. 17
Apr. 20.	Pittsburgh, Pa.	Apr. 17
Apr. 20.	Walla Walla, Wash.	Apr. 10
Apr. 20.	Santa Ana, Cal.	Apr. 17
Apr. 20.	Kansas City, Mo.	Apr. 17
Apr. 21.	Cape May, N. J. Adv. Apr. 17.	Apr. 17
Apr. 21.	Brooklyn, N. Y.	Apr. 17
Apr. 21.	Riverside, Cal.	Apr. 17
Apr. 22.	Newark, N. J.	Apr. 10
Apr. 22.	Port Jervis, N. Y. Adv. Apr. 10, 17.	Apr. 10
Apr. 22.	Richmond, Ind.	Apr. 17
Apr. 22.	West Bend, Wis.	Apr. 17
Apr. 22.	Jersey City, N. J.	Apr. 17
Apr. 22.	Asphalt Plant, Spokane, Wash.	Apr. 17
Apr. 22.	Brooklyn, N. Y.	Apr. 17
Apr. 23.	Cincinnati, O.	Apr. 3
Apr. 23.	Prairie du Chien, Wis.	Apr. 3
Apr. 23.	Coldwater, Mich.	Apr. 17
Apr. 23.	Pittsburgh, Pa.	Apr. 17
Apr. 23.	Neodesha, Kan.	Apr. 17
Apr. 23.	Salem, Ore.	Apr. 17
Apr. 23.	Edgar, Ill.	Apr. 17
Apr. 24.	La Crosse, Wis.	Apr. 3
Apr. 24.	Abbeville, La.	Apr. 10
Apr. 24.	Yoncalla, Ore.	Apr. 17
Apr. 26.	Marble Cliff, O.	Apr. 3
Apr. 26.	Akron, O.	Apr. 10
Apr. 26.	Port Clinton, O.	Apr. 10
Apr. 26.	Seattle, Wash.	Apr. 10
Apr. 26.	California	Apr. 10
Apr. 26.	Franklin, Pa.	Apr. 10
Apr. 26.	Albany, N. Y. Adv. Apr. 10, 17.	Apr. 10
Apr. 26.	Chesterfield, N. J.	Apr. 10
Apr. 26.	Mingo Junction, O. Adv. Apr. 17.	Apr. 17
Apr. 26.	Orillia, Wash.	Apr. 17
Apr. 26.	Los Angeles, Cal.	Apr. 17
Apr. 26.	Columbia City, Ind.	Apr. 17
Apr. 26.	Riverside, Cal.	Apr. 17
Apr. 26.	Verona, O.	Apr. 17
Apr. 27.	Oak Harbor, O.	Apr. 10
Apr. 27.	Seattle, Wash.	Apr. 10
Apr. 27.	North Bend, Ore.	Apr. 17
Apr. 27.	Toronto, Ont.	Apr. 17
Apr. 27.	Belleville, N. J.	Apr. 17
Apr. 28.	Cleveland, O.	Apr. 10
Apr. 28.	Paterson, N. J. Adv. Apr. 17.	Apr. 17
Apr. 28.	Cleveland, O.	Apr. 17
Apr. 29.	Nashville, Tenn.	Apr. 3
Apr. 29.	Albany, N. Y. Adv. Apr. 17.	Apr. 17
Apr. 29.	Bemidji, Minn.	Apr. 17
Apr. 29.	Nashville, Tenn. Adv. Apr. 17.	Apr. 17
Apr. 29.	Urbana, O.	Apr. 17
Apr. 29.	Cannelton, Ind.	Apr. 17
Apr. 30.	Coldwater, Mich.	Apr. 3
Apr. 30.	Cincinnati, O.	Apr. 10
Apr. 30.	Reading, Pa. Adv. Apr. 17.	Apr. 17
May 1.	Kingston Station, Wilkes-Barre, Pa.	Mar. 27
May 1.	Starkville, Miss. Adv. Apr. 17.	Apr. 17
May 1.	Colfax, Wash.	Apr. 17
May 1.	Rousville, Pa.	Apr. 17
May 1.	Newton, Kan.	Apr. 17
May 1.	Jeromesville, O.	Apr. 17
May 3.	Hutchinson, Kan.	Apr. 17
May 3.	Washington	Apr. 17
May 3.	Ellensburg, Wash.	Apr. 17
May 3.	Oil City, Pa.	Apr. 17
May 4.	Plymouth, Wis.	Apr. 10
May 4.	Mt. Vernon, Wash.	Apr. 17
May 4.	Lake Charles, La.	Apr. 17
May 5.	Albany, N. Y. Adv. Apr. 17.	Apr. 17
May 7.	Toledo, O.	Apr. 10
May 7.	Plymouth, Ind.	Apr. 17
May 14.	Toledo, O.	Apr. 17
May 15.	Newton, Kan.	Apr. 10
May 17.	Colfax, Wash.	Apr. 17
Jun. 3.	Grinnell, Ia.	Apr. 17

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Apr. 20.	River Improvement, Tiffin, O. Adv. Apr. 3, 10.	Mar. 27
Apr. 20.	Seawall, Seattle, Wash.	Apr. 3
Apr. 20.	Ditch Wk., Slayton, Minn.	Apr. 17
Apr. 21.	Dam, Salt Lake City, Utah	Apr. 17
Apr. 21.	Drainage, Plain Dealing, La.	Apr. 17
Apr. 24.	Dredging, Winter Haven, Fla. Adv. Apr. 17.	Apr. 10
Apr. 24.	Dredging, Winter Haven, Fla. Adv. Apr. 17.	Apr. 17
Apr. 24.	Dam, Denver, Col.	Apr. 17
Apr. 26.	Valves, Etc., for Locks, Panama Adv. Apr. 3.	Apr. 3
Apr. 26.	Reconstructing Dam, Marietta, O.	Apr. 3
Apr. 26.	Drainage, St. Louis, Mo.	Apr. 10
Apr. 26.	Flood Protection Wk., Indianapolis, Ind.	Apr. 17
Apr. 26.	Concrete Work on Harriet Island, St. Paul, Minn.	Apr. 17
Apr. 27.	Steel Locks for Dam No. 29, Cincinnati, O. Adv. Apr. 10, 17.	Apr. 10
Apr. 27.	Levee Work, Augusta, Ga. Adv. Apr. 17.	Apr. 10
Apr. 27.	Dam and Bulkhead, Waverly, Ia. Adv. Apr. 17.	Apr. 17
Apr. 28.	Dredging Ship Canal, Detroit, Mich. Adv. Apr. 17.	Apr. 17
Apr. 29.	Ditch, Bucyrus, O.	Apr. 10
Apr. 30.	Irrigation Work, Browning, Mont.	Apr. 10
Apr. 30.	Ditch, St. James, Minn.	Apr. 17
May 1.	Drainage, New Bern, N. C.	Apr. 10
May 3.	Dredging, New Orleans, La. Adv. Apr. 3, 10.	Apr. 3
May 4.	Irrigation Work, Provo, Utah	Apr. 17
May 10.	Revetment and Dike, Kansas City, Mo. (Two prop.) Adv. Apr. 10, 17.	Apr. 10
May 11.	Breakwater, Detroit, Mich. Adv. Apr. 17.	Apr. 17
May 12.	Irrigation, Saco, Mont. Adv. Apr. 10.	Apr. 10
May 12.	Crib Work, Detroit, Mich. Adv. Apr. 17.	Apr. 17
May 15.	Lock, Detroit, Mich. Adv. Apr. 17.	Apr. 17

PUBLIC BUILDINGS AND SCHOOLS.

Apr. 20.	Douglas, Wyo.	Mar. 27
Apr. 20.	Alliance, O.	Mar. 27
Apr. 20.	Portland, Me.	Mar. 20
Apr. 20.	Gloucester, N. J. Adv. Mar. 27, Apr. 3.	Mar. 27
Apr. 20.	Waterloo, Ia.	Apr. 3
Apr. 20.	Nashville, Tenn.	Apr. 10
Apr. 20.	Lawrence, Mass.	Apr. 10
Apr. 20.	Newark, N. J.	Apr. 10
Apr. 20.	Peckville, Pa.	Apr. 17
Apr. 21.	Chicago, Ill.	Apr. 17
Apr. 21.	Lawrence, Kan.	Apr. 17
Apr. 22.	Vandalia, O.	Apr. 3
Apr. 22.	McKeesport, Pa.	Apr. 3
Apr. 22.	New York, N. Y.	Apr. 3
Apr. 22.	Knoxville, Tenn.	Apr. 10
Apr. 22.	Riverhead, N. Y.	Apr. 17
Apr. 22.	Los Angeles, Cal.	Apr. 17
Apr. 23.	Toledo, O.	Mar. 20
Apr. 24.	Troy, O.	Apr. 3
Apr. 26.	New York, N. Y. Adv. Apr. 3 to 17.	Apr. 3
Apr. 26.	Lancaster, O.	Apr. 3
Apr. 26.	Youngstown, O.	Apr. 10
Apr. 26.	Greatkills, N. Y.	Apr. 17
Apr. 26.	Granville, N. D.	Apr. 17
Apr. 26.	Luzerne, Pa.	Apr. 17
Apr. 26.	Toronto, Ont.	Apr. 17
Apr. 27.	Grand Forks, N. D.	Apr. 3
Apr. 27.	Newark, N. J.	Apr. 10
Apr. 27.	Patton, Cal.	Apr. 17
Apr. 27.	Northfield, Minn.	Apr. 17
Apr. 27.	Pittsburgh, Pa.	Apr. 17
Apr. 27.	Grand Forks, N. D.	Apr. 17
Apr. 27.	Towanda, Pa.	Apr. 17
Apr. 28.	Ardmore, Okla.	Mar. 27
Apr. 29.	Trenton, N. J.	Apr. 10
Apr. 29.	Hawthorne, Cal.	Apr. 17
Apr. 30.	Ft. Bliss, Tex. Adv. Apr. 3 to 17.	
Apr. 30.	Youngstown, O.	Apr. 10
Apr. 30.	Oberlin, O.	Apr. 10
Apr. 30.	Beltsville, Md.	Apr. 17
May 1.	Apalachicola, Fla.	Apr. 10
May 1.	Philadelphia, Pa.	Apr. 17
May 1.	Brookville, O.	Apr. 17
May 1.	Salina, Kan.	Apr. 17
May 1.	Auburn, Me.	Apr. 17
May 3.	Chicago, Ill.	Apr. 17
May 3.	St. Catharines, Ont.	Apr. 17
May 4.	Rushville, Ill.	Apr. 10
May 4.	Ft. Pierce, Fla.	Apr. 17
May 4.	Wadsworth, O.	Apr. 17
May 4.	Milan, Minn.	Apr. 17
May 4.	Norwalk, Cal.	Apr. 17
May 5.	Walla Walla, Wash.	Apr. 10
May 5.	Ft. Screven, Ga.	Apr. 17
May 5.	Grants Pass, Ore.	Apr. 17
May 6.	Aberdeen, S. D.	Apr. 10
May 6.	Bonaparte, Ia.	Apr. 17
May 8.	New Albany, Ind.	Apr. 10
May 10.	Brooklyn Heights, O.	Apr. 17
May 11.	Corpus Christi, Tex.	Apr. 17
May 12.	Bryan, Tex.	Apr. 10
May 13.	Park City, Utah	Apr. 10
May 14.	New Haven, Conn.	Apr. 10
May 14.	Aberdeen, S. D.	Apr. 17
May 17.	Concord, N. H. Adv. Apr. 10, 17.	Apr. 10
May 18.	Laurel, Miss.	Apr. 17
June 1.	Harrisburg, Pa.	Mar. 18

PRIVATE BUILDINGS.

Apr. 20.	Milwaukee, Wis.	Apr. 10
Apr. 20.	Portland, Ore.	Apr. 17
Apr. 22.	Clinton, Ind.	Apr. 3
Apr. 26.	Lake Benton, Minn.	Apr. 17
Apr. 28.	Starbuck, Minn.	Apr. 17
Apr. 29.	Moorehead, Minn.	Apr. 17
May 1.	Waterville, Minn.	Apr. 17
May 10.	Charleston, S. C.	Apr. 17

MISCELLANEOUS.

Apr. 19.	Cement for Dam Work, Louisville, Ky. Adv. Mar. 27 to Apr. 17.	Mar. 27
Apr. 19.	Wood Guard Rail, Connecticut. Adv. Apr. 17.	Apr. 10
Apr. 20.	El. Ry., Sect. 3, Route 13, Brooklyn, N. Y. Adv. Mar. 27, Apr. 3.	Mar. 27
Apr. 20.	Electric Light Plant, Pratt, Kan. Adv. Apr. 3.	Apr. 3
Apr. 20.	Iron Castings, Brick, Cement, Etc., Charleston, S. C.	Apr. 3
Apr. 20.	Hoist, Bremerton, Wash.	Apr. 3
Apr. 20.	Cable, Washington, D. C.	Apr. 3
Apr. 20.	Fire Escapes, Blackwells Island, N. Y.	Apr. 17
Apr. 20.	Sprinkler System, Augusta, Ga.	Apr. 17
Apr. 20.	Steps and Walls, Boston, Mass.	Apr. 17
Apr. 22.	Hardware for College, Syracuse, N. Y. Adv. Apr. 17.	Apr. 17
Apr. 26.	Electric Light Plant, Perth Amboy, N. J. Adv. Apr. 10, 17.	Apr. 10
Apr. 27.	Steel Stray Bolt Iron, etc., Panama	Apr. 10
Apr. 28.	Derrick and Hoist, Seattle, Wash.	Apr. 17
Apr. 28.	Insulation for Bldg., Seattle, Wash.	Apr. 17
Apr. 29.	Boat, Wheeling, W. Va. Adv. Apr. 3 to 17.	Apr. 3
Apr. 30.	Garbage Disposal, Manchester, N. H.	Apr. 17
Apr. 30.	Retaining Walls, Wilkes-Barre, Pa.	Apr. 17
May 1.	Sprinkler System, Boston, Mass.	Apr. 17
May 1.	Electric Railways, Columbus, O.	Apr. 17
May 3.	Pier Shed, Panama	Apr. 17
May 4.	Fences for Water Board, New York, N. Y. Adv. Apr. 17.	Apr. 17
May 13.	Scows, Louisville, Ky. Adv. Apr. 17.	Apr. 17

★*Items marked thus give the names of parties awarded contracts.*

Barrett Specification Roofs

Approved by the Underwriters' Laboratories

THE Underwriters' Laboratories of Chicago investigates and classifies all kinds of building materials for the Fire Underwriters, and the result of these investigations is used in the consideration of insurance rates and classifications.

In main, its reports cover fire hazard, but its investigations also include: durability, strength, practicability, etc., of the product or material tested.

We filed with the Underwriters' Laboratories a set of claims regarding Barrett Specification Roofs and materials.

Their investigation of these claims, covered several years and included a tremendous work in their own testing plant in Chicago and in the field where a large number of old roofs were visited and studied.

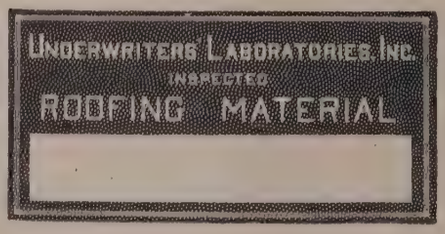
Their report substantiates our claims, as will be seen by the following excerpt:

"Their roof coverings (Barrett Specification Roofs) have been shown by tests and investigations at Underwriters' Laboratories to afford a high degree of fire protection to roof deck; to be not readily flammable and not to carry or communicate fire to any material extent; not to slip from position when heated; to possess little or no flying brand hazard; to exert considerable blanketing influence upon fires within buildings; to be durable under service conditions for periods in exces of 10 years; and to fulfill the requirements for the classification given."

No wonder Barrett Specification Roofs take the base rate of insurance.

Photographs taken after conflagrations and reproduced in the Report show Barrett Specification Roofs with large areas still intact in gutted buildings, constituting, with brick walls and large charred timber, the sole survivors of the fires!

We have accepted the inspection service of the Underwriters' Laboratories at our factories for regular testing of the materials for these roofs as to quality and weight of Barrett Specification Tarred Felt and Barrett Specification Pitch, and henceforth these materials will carry the Underwriters' Laboratories label in addition to our own Specification label.



A copy of The Barrett Specification, with roofing diagrams, also complete report of Underwriters' Laboratories mailed free on request.

BARRETT MANUFACTURING COMPANY

New York Chicago Philadelphia Boston St. Louis Cleveland Cincinnati Pittsburgh
Detroit Birmingham Kansas City Minneapolis Salt Lake City Seattle

The Paterson Mfg. Co., Limited Montreal Toronto Winnipeg Vancouver
St. John, N. B. Halifax, N. S. Sydney, N. S.

TRADE B MARK

Oregon Abolishes Office of State Highway Engineer

The last Legislature of the State of Oregon abolished the office of State highway engineer and consolidate the work of that department with that of the State engineer. The passage of this law by the House of Representatives of Oregon was noted in this journal March 6.

New York State Highway Office to Be Moved

The office of the New York State Highway Commission, Division 1, of which Bertrand H. Wait, division engineer, is in charge, will be moved from White Plains to Poughkeepsie May 1.

Line of Bolt Holes Split Timber Support of Asphalt Still

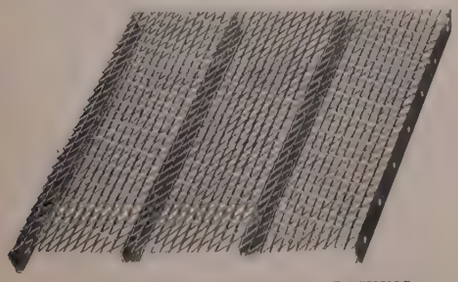
Wooden columns, which had been used to reinforce the supports of a double asphalt paving still at the plant of the Barber Asphalt Company at Maurer, N. J., failed a short time ago precipitating the still to the ground.

A fire two years previously had damaged the steel columns supporting the still, and these columns had been reinforced with timber posts. At each rivet hole in the connecting angles of the steel columns, bolts were run through the timber posts to hold them in place. This brought a row of ten holes in line in the same course of grain in the timbers, and resulted finally in splitting them, causing the failure. These columns, along with the entire plant, were inspected at frequent intervals. However, a thin film of asphalt covered the timbers soon after they had been placed, and almost concealed the development of the split.

The unusual feature of the accident was that the columns happened to fail when the still was empty, and therefore 200 tons lighter than when filled. When there was any asphalt in the still there were usually workmen beneath filling barrels with the the liquid. This chance, therefore, probably prevented serious injury to some of the employees.

Closed Ribs Said to Aid New Type of Reinforced Metal Lath

Closed ribs, which, it is claimed eliminate cracking of plaster along the line of the rib, and a diamond-shaped mesh adopted for keying plaster in any direction, are features of a new type of reinforced metal lath called "Chanelath," which has just been placed on the market. The material is said to be particularly fitted for use in solid plaster partitions and for lathing suspended ceilings as well as a reinforcing medium in the construction of concrete roofs and floors. The reinforcing or furring members of "Chanelath" consist of T-shaped ribs spaced 4 in. apart and connected by a small mesh lath. The ribs are solid and the mesh extends in an unbroken surface across the entire sheet, which can be obtained in any width that is a multiple of 4 in. up to and including 4 ft. It is made in lengths of 6, 8, 9, 10 and 12 feet. The riveting holes in the ribs can also be utilized for any additional reinforcing that might be required. Under a test the metal tore before the riveted channels of the rib could be parted. The T-shaped rib is designed to give a mechanical bond. The new product is manufactured by the North Western Expanded Metal Company, of Chicago.

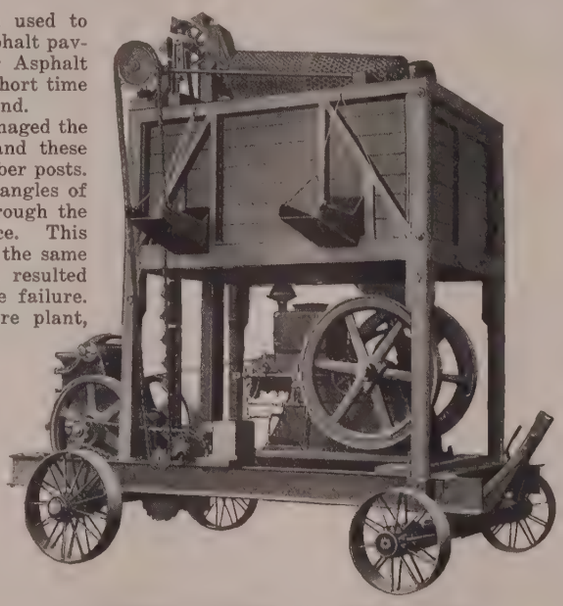


LATH TO ELIMINATE PLASTER CRACKING

Portable Crushing Plant for Remote Jobs of Small Magnitude

To meet the needs of contractors who have small concrete jobs in remote places where gravel pits are not available, a portable crushing rig has been put on the market by the Smith Engineering Works of Milwaukee, Wis. This rig is designed to crush field boulders.

The crusher is a standard No. 7 Telsmith crusher, with a 7 x 10-in. opening, and has manganese steel guy plates, cast steel frame, direct crusher stroke and inclosed eccentric. It is driven by a 12 hp, double-opposed-cylinder engine. It is claimed to have a capacity of 2 to 2½ tons per hour of ½-in. stone and ¾ ton per hour of 1½-in. stone. A reciprocating feeder, operated by the swinging jaw of the crusher, conveys stone from the crusher to the elevator. The elevator is a vertical single-chain elevator with a 7 x 4½ x 5½ in. buckets, malleable chain and steel boot. It has a folding section at the top to reduce the head room required. The standard rig is equipped with a chute screen. Perforations are made to suit. If preferred it is furnished with a rotary screen, central shaft type, 16 in. in diameter and 4 ft. long. The bin is flat-bottom and portable with four bin gates. The available capacity if shoveled out is said to be 5 tons and the capacity that will flow out by gravity about 3 tons.



PORTABLE CRUSHER FOR REMOTE JOBS

The whole rig weighs 9000 lb. A rotary screen adds about 400 lb. It is claimed that two horses will pull it on a paved street and that four horses will take it anywhere an automobile can be driven.

Business Notes

M. T. Calef, road engineer for the Rocmac Road Department of the Philadelphia Quartz Company has opened an office in the Trustee Building, 8 N. Market Sq., Harrisburg, Pa.

The Waterworks Manufacturers' Association will hold its annual meeting at the Hotel Gibson, Cincinnati, during the week of the American Waterworks Association Convention, May 10 to 14.

George S. Bartlett, vice-president of the Edison Portland Cement Company, New York, has resigned and rejoined the sales force of the Universal Portland Cement Company, with headquarters in Chicago.

The Rocmac Road Department of the Philadelphia Quartz Company of Philadelphia, has established a branch office in the Union Building, Anderson, Ind. Brooks E. Miller is the representative covering this territory.

The C. W. Hunt Company, Inc., manufacturers of coal handling machinery, conveying machinery and small motor trucks, has moved its New York City office from 45 Broadway to the Adams Express Company Building, 61 Broadway.

The Pacific Flush-Tank Company has moved its general offices to 4241-4243 E. Ravenswood Ave., Chicago, Ill. In the new building a testing laboratory will be maintained in which will be exhibited and demonstrated many of the company's appliances.

Edward O. Keator & Company, Box 425, Cincinnati, Ohio, have taken over the sale of the Hodges adjustable forms for concrete building construction, heretofore handled by J. E. Hodges & Company, Lincoln Court, Cincinnati. These forms have been used quite extensively by the Ferro-Concrete Construction Company, of Cincinnati, and include a special type of slab form and adjustable supports for carrying both beam and slab forms.

Trade Publications

The following companies have recently issued trade publications:

Kerr Turbine Company, Wellsville, N. Y. Bulletin 51, 6 x 9 in., 16 pages, illustrated. Treats of the "Economy" geared turbine.

Allis-Chalmers Manufacturing Company, Milwaukee. Catalog, 8 x 10½ in., 16 pages, illustrated. Oil engines of the Diesel type.

Blaw Steel Construction Company, Pittsburgh. Bulletin 66, 6 x 9 in., 32 pages, illustrated. Shows typical uses of Blaw light wall forms and presents instructions as to their application.

Vulcanite Portland Cement Company, 8 West 40th Street, New York. Booklet, 3½ x 6 in., 24 pages, illustrated. Contains instructions for building simple wooden forms for concreting.

Bergen Point Iron Works, Bayonne, N. J. Leaflet, 4 pages, illustrated. Brief description of the Panama Canal coaling stations which are being built and are expected to be completed in 1916.

Dobbie Foundry & Machine Company, Niagara Falls, N. Y. Catalog 18, 9 x 6 in., 128 pages, illustrated. Contains complete information on steel and wooden derricks of every type and full line of derrick parts.

Pneumatic Placing Co., Inc., 45 Broadway, New York. Leaflet forms 10, 11, 12 and 13, 6 x 9 in., each 4 pages, illustrated. Describe the use of pneumatic methods in placing concrete in tunnels, retaining walls, abutments, viaducts and piers.

North Western Expanded Metal Company, Old Colony Building, Chicago. Catalog, 6 x 9 in., 52 pages, illustrated. Kno-Burn expanded metal lath for reinforcing concrete, plastering and stucco work, and accessories such as fasteners, partitions, etc.

Providence Engineering Works, Providence, R. I., Bulletin, 8 x 10½ in., 24 pages, illustrated. Treats briefly of the theoretical considerations upon which the design of centrifugal pumps must be based, and describes the essentials of the Providence pump.

Dake Engine Company, Grand Haven, Mich. Catalog, 6 x 9 in., 40 pages, illustrated. Describes a pneumatic and steam motor and its various applications to jib cranes, chain hoists and trolleys, several types of pneumatic and steam and electric contractors' hoists, and motors for winches and capstans.

New Construction Activities

The price of securities reached a new high average on the New York Stock Exchange on April 20 for the year, and both on this day and on a majority of the days last week trading passed the million-share mark. It is predicted that if the public will buy those securities, now low, which may be safely counted as good investments after peace has been declared, the general situation will steadily improve. This class of stocks includes the leading railroad issues, in which, fortunately steady advance has indicated good buying for investment.

It seems that domestic steel orders are again to improve in volume. A better volume of small orders is coming in, and the first large purchase of railroad equipment since January is now under negotiation by the Pennsylvania system. This purchase, including 194 locomotives, 181 all-steel passenger coaches and over 16,000 freight cars, and which will call for over 180,000 tons of steel, is strictly a replacement order. This large requirement for replacement alone after the recent hard times, by one of the strongest roads in the country, indicates the volume of equipment-buying that may be expected when conditions begin to approach normal with some of the other large systems.

The lumber business, after having suffered a decline since last year, is beginning to improve both in volume and price. This was helped by a season last winter in the North Central timber lands so favorable that, in spite of large stocks, a cut equal to 75 per cent of normal was made in this section.

Buildings

The volume of building work, contracted for and prospective, increased slightly last week. A $450,000 recreation building has been contracted for at Chicago. The building to be erected for the Bureau of Mines at Pittsburgh has been contracted for $287,000. A contract for a $200,000 church was awarded at Dallas, Texas. Among a number of $100,000 building contracts awarded last week were a settlement building at Boston, an industrial building at New Bedford, Mass., a gymnasium at Worcester, Mass., and a roundhouse for the Chesapeake & Ohio Railroad at Lexington, Ky. The lowest bid opened for a school building in Washington, D. C., was $118,000. It is reported that Canton, Ohio, will receive bids on a $400,000 high school, and expects to spend $200,000 additional for grade schools. Bids are desired on a $210,000 school in Worcester, Mass. It is reported, bids for a $250,000 apartment house are to be let shortly in Washington, D. C. Bids are also desired by the city of Detroit on a $600,000 municipal courts building. A $1,000,000 apartment house is planned in New York City. Plans have been prepared for a $600,000 market in Long Island City, and for a $200,000 market in New York City. Plans have also been completed for a 2,000,000 bu. grain elevator for the Santa Fé at Argentine, Kansas. A $500,000 cotton mill project is reported from West Point, near Atlanta, Ga.

Bridges and Paving

The Missouri Public Service Commission has granted permission to the Arkansas & Memphis Railway, Bridge and Terminal Company to issue bonds for $7,500,000 to complete the bridge across the Mississippi River at Memphis. Engineers have been engaged to prepare plans for a $250,000 bridge across the Cumberland River near Nashville, Tenn. Milwaukee has voted a $240,000 bond issue for constructing a bridge over the Milwaukee River. The plans for the $125,000 bridge at Martinez, Cal., have been approved by the county commissioners. The lowest bid received April 15 for equipping tracks on the upper deck of the Manhattan Bridge, New York City, was $148,397.

The low bid opened April 13 by the New York Board of Water Supply for paving work in the neighborhood of the Ashokan Reservoir was $189,000. A $115,000 paving contract has been let at Hackensack, N. J. A $130,000 contract has been let at Yonkers, N. Y. Low bids opened April 14 by the New York State Highway Commission for new road construction totaled over $700,000, and bids for repair work opened April 20 totaled over $200,000 more. The States of New York, Massachusetts, Maryland, Illinois and Ohio are calling for bids on large additional amounts of road work. Bids are desired at Duluth, Minn., for highway work that will cost $200,000. At Alexandria, La., bids on 25 miles of road construction are desired.

Ottawa, Ont., will receive bids April 22 for paving work to cost $120,000. Bond issues totaling $775,000 are reported from the State of Arizona, of which $106,000 has already been sold. Portsmouth, Va., and Welch, W. Va., desire bids on road bond issues of $250,000 and $165,000 respectively.

Waterworks and Sewers

Cleveland, Ohio, has awarded a $250,000 contract on the Baldwin reservoir, and has also approved contract for $344,000 worth of cast-iron pipe and special castings. A price of $23 a ton was bid recently for cast iron pipe at Union, S. C. Ogden, Utah, has awarded a $49,000 pipe line contract and Oregon City, Ore., has contracted for a line which will cost $286,000. Low bid for repairs to a water tank at Boston was $46,000. Walterboro, S. C., desires bids for three miles of water pipe, six miles of sewers and other municipal improvement work. Preliminary work has been started on a reservoir project at Salt Lake City, Utah. The improvements recommended by Allen Hazen to the waterworks of St. Paul, Minn., are estimated to cost $1,500,000.

Two contracts have been let for sewage work at Rochester, N. Y., totaling $185,000. Contracts have finally been signed for $475,000 worth of work on the Milwaukee sewers on which bids were opened Feb. 24. Bids are desired on sewer work totaling $285,000 in Brooklyn. Bids are also desired on another section of the Passaic sewer at Newark, N. J. It is reported from Syracuse, N. Y., that a sewer, which will cost approximately $112,000, is to be constructed.

Miscellaneous

The contract for the New York City subway section noted last week has been awarded to the lowest bidder. Low bid opened April 20 for another section, number 2 of route 12, totaled $2,734,000. The contract for building the first section of the Jamaica Avenue elevated railroad in Brooklyn has been awarded at $750,000. It is reported that a 30,000-hp hydroelectric plant has been contracted for to be built at Great Falls, S. C. The contract price for the drainage system to be constructed near Union City, Tenn., was $208,000. The U. S. Engineer Office at Kansas City, Mo., has advertised bids for dike work which will require a large quantity of timber. Bids are desired on an irrigation system at Bellefourche, S. Dak., which will cost $350,000. A contract for wharf improvement work at New Orleans which will cost $194,000 has been awarded. It is reported from San Antonio and Galveston, Tex., that the Missouri, Kansas & Texas and the Santa Fé Railways will spend $1,800,000 in right-of-way and track improvements in Texas.

Contracting News

Of Special Interest to Engineers, Contractors, Builders and Manufacturers of Engineering and Building Supplies

WATERWORKS.

Items Arranged Geographically

Boston, Mass.—Following are 3 lowest bids opened Apr. 16 by Metropolitan Water & Sewerage Bd. for constructing a masonry tower around a steel water tank on Bellevue Hill, West Roxbury Dist., Boston: C. A. Dodge & Co., Cambridge, $52,757; John Cashman & Sons Co., Atlantic Ave., Boston, $46,000; Coleman Bros., Chelsea, $46,900.

Bids desired until 1:30 p. m. Apr. 26 at office of Metropolitan Water and Sewerage Bd., Boston (Dexter Brackett, Ch. Engr.), for laying 8000 lin. ft. 60-in. c.-i. water pipe in Newton; the work includes 185 cu. yds. rock excavation.

Albany, N. Y.—Council reported to be considering issue of $100,000 bonds for extension of water system.

Gilbertsville, N. Y.—Bids desired until May 6 by Bd. Village Trus. (John Hanker, Pres.) for constructing a storage reservoir advertised in Engineering Record. Chas. E. Perry, Consulting Engr., 102 Hudson Ave., Albany.

Pittsburgh, Pa.—Bids desired until Apr. 29 by Robt. Swan, Dir. Dept. Pub. Wks., to furnish 4 3-in., 12 4-in. and 4 6-in. compound water meters.

Baltimore, Md.—The Bd. of Estimate has authorized Water Bd. to prepare specifications of an electrically-driven centrifugal pump at Eastern Pumping Station recommended by Ezra B. Whitman, Consulting Engr. of the Water Bd. It will take the place of the pump that was wrecked several weeks ago. The new pump will have a daily capacity of 25,000,000 gal.; cost, $25,000. Mr. Whitman also recommended two pumps of 30,000,000 gal. capacity ea. for Mt. Royal Station, one to be installed as soon as possible and the other later. The two pumps estimated at $356,000.

Bids desired until May 5 by Bd. Awards addressed to office of City Register for Contract 41, furnishing Water Dept. sulphate of iron, advertised in Engineering Record. Robt. L. Clemmitt, Acting Water Engr.

Wheeling, W. Va.—City Council reported to be considering bond issue of $640,000 covering the installation of the Smith Slow Sand Filter System. Work will include installing filter, 20,000,000 gal. capacity, $430,000; valve chambers and auxiliary pumping station with 4 centrifugal 10,000,000 gal. capacity pumps, $60,000; concrete reservoir, 5,000,000 gal. $60,000; 36-in. line from reservoir to present pumping station, $70,000; rights of ways, $20,000.

Union, S. C.—Following are bids opened Mar. 30 for (a) 24,720 ft. c. i. pipe, per ton; (b) 12,000 lbs. c. i. specials, per ton: U. S. Cast Iron Pipe & Fdy. Co., Chattanooga, Tenn., (a) $22; (b) $55; General Pipe & Fdy. Co., Atlanta, Ga., (a) $22.10; (b) $55; American Cast Iron Pipe Co., Birmingham, Ala., (a) $22.50; (b) $55. R. A. Esterling, City, Engr.

Walterboro, S. C.—Bids desired until May 14 by Comrs. Pub. Wks. (H. W. Black, Chmn.) to furnish material and construct sewerage, electric and waterworks systems as follows: Complete system of sanitary sewers, including approximately 6 miles pipe sewers from 8 to 15 in. in diam., manholes, flush tanks, etc.; waterworks includes 3 miles 6 and 8-in. c. i. pipe with specials; 40 fire hydrants; 20 gate valves; one 100,000 or 75,000-gal. tank and tower; 2 100-hp. boilers; a 200-hp. feed water heater with pump; a steam engine for direct connection to generator; 2 750-g.p.m. steam pumps; a triplex service pump; steam and hydraulic pipe and other auxiliaries; a 150,000-gal. concrete reservoir with concrete cover; an artesian well; total cost about $46,000. H. S. Jaudon Eng. Co., Engrs., Box 582, Savannah, Ga.

Winnsboro, S. C.—Bonds in the sum of $80,000 reported sold for water works, sewers and improvement of electric light plant.

Alamo, Ga.—Bids desired until May 4 by W. L. Thompson, Mayor, for $15,000 water bonds.

Macon, Ga.—City Water Bd. reported planning extension of water mains to South Macon to cost $15,000.

Phenix City, Ga.—Citizens voted Apr. 6 to issue $16,000 bonds to extend present water main system.

Maryville, Tenn.—Bids desired by W. A. McTeer, City Recorder, until May 10 for the purchase of $55,000 bonds to be used for construction of water works, from plans of R. C. Huston, of Memphis.

Memphis, Tenn.—Following are reported to be 4 lowest bids opened Apr. 13 for building reservoir on Bayou Gayoso, between Main and Front Sts.: Koehler Bros., 68 Camp Ave., Memphis, and Fowler Constr. Co., associated, $14,162; A. L. Dumas, $14,847; G. O. White & Co., $15,288; Larkin & Co., $15,910.

Cincinnati, O.—Bids desired until Apr. 30 by Director Pub. Service (Parke S. Johnson, Secy.) for furnishing and delivering c.-i. pipe, special and miscellaneous castings, for Madison, Deerfield and Montgomery Rds., Yononte, Euclid, Kennedy and Belmont Aves.; also laying c.-i. pipe, special castings and valves in various streets during the year 1915; also furnishing and delivering 16, 20, 24 and 42-in. valves; also cleaning c.-i. pipe, special castings, valves and other miscellaneous work in connection therewith during year 1915.

★*Items marked thus give the names of parties awarded contracts.*

Cleveland, O.—Bids desired until Apr. 30 by A. R. Callow, Comr. Purchases and Supplies, for riveted steel pipe for Division Ave. Pumping Station; also steel rails for the West Side tunnel construction.

★Contract awarded on bids opened Apr. 2 by Comr. Purchases and Supplies for excavation Baldwin Reservoir, to Fred R. Jones Co., Cleveland, at $250,000.

★Contracts approved by Bd. of Control Apr. 9 with Bowler Fdry. Co., Cleveland, for hub and special castings and miscellaneous castings for the division of water, at $17,360; and with the U. S. Cast Iron Pipe & Fdy. Co. for c. i. pipe and specials and miscellaneous castings at $325,270.

Columbus, O.—Bids desired until Apr. 28 by Director Pub. Safety (H. C. Barrett, Secy)., to furnish one or more kinds of the 3 kinds of hydrants, as follows: 1st kind, 125 hydrants of not less than 4-in. valve opening and 4 ft. 6 in. bury. 2nd kind, 25 hydrants, to have not less than 4-in. valve opening and 4 ft. bury. 3d kind, 50 hydrants, to have not less than 5-in. valve opening and 4 ft. 6 in. bury.

Dayton, O.—Following are reported to be the bids opened Apr. 16 for a high service pump at central pumping station with a daily capacity of 3,000,000 gals.: Snow Pump Co., New York, $13,913; Prescott Co., Chicago, $11,890; Laidlaw Dunn-Gordon Co., Cincinnati, $11,485; Allis Chalmers Co., Cincinnati, $13,950; McGowen Co., Cincinnati, $9,510; Platt Iron Wks. Co., Dayton, $11,695; National Transit Co., Chicago, $15,376.

Lisbon, O.—Bids desired until May 7 by Bd. Trus. Pub. Affairs, for steam driven air compressor f. o. b. cars on water works switch, advertised in Engineering Record. W. E. Ferrall, Clk.

Toledo, O.—An expenditure of $50,000 at the filtration plant was approved by Pub. Improv. Com. Part of the bond issue, if passed by Council, will go for improvements for elimination of the tar taste.

Dowagiac, Mich.—An election will probably soon be held to vote $10,000 bonds for rebuilding municipal electric light plant and water works.

Chicago, Ill.—Bids desired until Apr. 29 by L. E. McGann, Comr. Pub. Wks., to furnish and deliver at the Roseland Pumping Station, a 200-gal. per min. steam-turbine driven direct-connect centrifugal sump pump, together with the sump cover.

Cicero, Ill.—Bids opened Apr. 12 by Chas. Stoffell, Town Clk., for laying water mains in S. 61st Ave., W. 12th and 15th Sts., have been rejected and new bids will be received Apr. 26.

★**Stronghurst, Ill.**—Contract awarded by Bd. Local Improv., Apr. 15, to T. H. Iglehart, of Chicago, to furnish material and construct a system of c. i. water pipes with hydrants, valves and valve boxes at a total of $10,373. Engineers, W. S. Shields Co., Hartford Bldg., Chicago.

Bids desired until May 7 by Foster Lazear, Village Clk., to furnish and install a deep well pump capable of lifting water at the rate of 100 or more gals. per min. from 100 ft. below the floor of engine room and discharging it into an elevated tank 110 ft. above the floor. Equipment shall include a suitable gasoline engine for driving the pump (alternate bids for oil engines or motors may be submitted). The W. S. Shields Co., Engrs., Hartford Bldg., Chicago, Ill.

Mineral Point, Wis.—This city will construct a well, water tower, waterworks building, and repair distribution system.

Marcus, Ia.—Floyd Barnes, City Clk., writes plans are being prepared by G. Y. Skeels, of Sioux City, for water works, to cost $25,000.

Morning Sun, Ia.—Bids desired until May 3 by W. B. Garvin, Town Clk., for water works system, including 218 tons c.-i. pipe Class B, 7736 lbs. special castings, 50,000-gal. tank and tower, 30 g.p.m. deep well pump, 6-hq. oil engine, one 6-hp. electric motor, valves and hydrants, erecting pumping station and laying mains, etc. Harper & Stiles, Engrs., Grand Ave. Temple, Kansas City, Mo.

Cottonwood, Minn.—Bids desired until May 8 by W. A. Sisson, Village Recorder, for extension of water mains, consisting of approximately 5698 ft. 4-in. c.-i. water pipe, 11 hydrants, gates and valve boxes. J. A. Rowat, Engr., Willmar.

★**Duluth, Minn.**—Contract for construction of a concrete reservoir of 1,000,000-gal. capacity has been awarded to D. H. Clough, at $12,985. A. A. Reed, Mgr. Water and Light Dept.

Glencoe, Minn.—Bids desired until Apr. 29 at office of Peter Hatz, City Clk., for extension to water works system, to consist of approximately 6400 ft. 6-in. c.-i. bell and spigot water main, necessary valves, specials, etc.; alternate bids for approximately 3200 ft. 6-in. and 3200 ft. 4-in. c.-i. bell and spigot water main, necessary hydrants, valves, specials, etc.

New Ulm, Minn.—Bids desired until May 5 at office of Wm. Becker, City Clk., for furnishing material and laying water mains, placing gates, fire hydrants and specials for extension of water works system, approximately 3000 ft. mains in Bway., Minnesota and 10th N. St. F. D. Minium, City Engr.

St. Paul, Minn.—Allen S. Hazen, of New York, in a partial report to Water Board estimates cost of about $1,500,000 for bettering the city water system; work includes increasing capacity of the lake reservoirs, installing new pump at McCarrons Lake, constructing filtration plant, etc.

Ewing, Neb.—Bids reported desired until Apr. 30 by R. O. Anderson, Village Clk., to construct a water works system. Fairbanks, Morse & Co., Engrs., Omaha.

Sykeston, S. D.—Chas. L. Smith, City Clk., writes that it is proposed to construct water works, to cost $14,000.

★**Laramie, Wyo.** — Contract awarded Apr. 13 for constructing 5 miles pipe line to J. S. Schwartz of Colorado Springs, Colo., at $6,410. Z. E. Sevison, City Engr.

Ft. Worth, Tex.—The Citizens Waterworks Com. has recommended to new City Comn. that Holman & Laird, Engrs., St. Louis, be selected to make surveys of the waterworks.

Montrose, Colo.—Bids desired until May 6 by A. E. Tuttle, City Clk., for furnishing c.-i. pipe, Matheson joint and steel pipe; also hydrants, valves and for laying about 6 miles of mains and distribution system and 4 miles of 10 and 12-in. flow line of either Matheson joint, c.-i. or steel pipe. Burns & McDonnell, Engrs., Kansas City, Mo.

Riverside, Wash.—Bids reported desired by W. H. Patterson, Town Clk., until May 4 for constructing a water works system; probable cost $9,500. G. H. Green, Engr., Riverside.

Bandon, Ore.—Bonds in the sum of $48,000 reported sold, to be used for construction of water works.

★**Oregon City, Ore.**—Contract for construction of South Fork pipe line, to furnish water to Oregon City and West Linn, was signed Apr. 7 by the South Fork Water Comn. and J. W. Moffatt, of the Oregon Eng. & Constr. Co., holders of contract; cost of line about $286,765.

★**Ogden, Utah.**—Contract awarded Apr. 13 by City Comrs. for furnishing material and constructing the proposed pipe line from Coldwater canyon to artesian well in Ogden Valley about 18,400 ft. Matheson Joint pipe to Geo. A. Lowe & Co., of Ogden, at $49,050.

Ottawa, Ont.—Bids desired until May 12 by Chmn. and Members of Water Comn., for erecting an electrically operated pumping unit. R. L. Haycock, Acting W. W. Engr.

SEWERAGE AND SEWAGE DISPOSAL.

Items Arranged Geographically

Bridgeport, Conn.—Bids desired until May 10 by Paving and Sewer Comn. (Bernard Keating, Secy.) for constructing sewers in Seaview and Housatonic Aves., advertised in Engineering Record. Alfred H. Terry, City Engr.

Brooklyn, N. Y.—Bids desired until Apr. 28 by L. H. Pounds, Pres. Brooklyn Boro, for constructing storm and sanitary sewers in portions of several streets including 84th, 85th and 86th Sts. Engineer's estimate $147,011. Storm sewers in Stilwell Ave., Bay 38th and various streets, engineer's estimate $138,410.

★Contract reported awarded to C. F. Mentzinger's Son, 356 Bway., Brooklyn, at $15,022 for construction of sanitary sewers and pumping stations in Prospect Park.

Buffalo, N. Y.—Acting Comr. of Pub. Wks. Norton has petitioned Council for a bond issue of $100,000 for street paving and dock, viaduct, sidewalk and sewer repair work.

Huntington, L. I., N. Y.—Bids desired until May 14 by Sewer Comrs., of the Sewer Dist. (C. M. Felt, Secy.) for constructing sewers and sewage disposal works, advertised in Engineering Record. Geo. W. Fuller, Engr., 170 Bway., New York.

Oswego, N. Y.—Bids desired until Apr. 30 by Dept. Wks. (Chas. W. Linsley, Comr.) for constructing sewers, advertised in Engineering Record.

★**Ravena, N. Y.**—Following are 4 lowest bids opened Apr. 10 by Bd. Village Truss. for constructing about 5 miles of vitr. pipe sewers 8, 10 and 12 in. and a sewage treatment works from plans of Morrell Vrooman, Gloversville: H. W. Golden & Son, $28,635; Lincoln, Steele, Fleming Co., $28,121; Amanna & Sullivan, $28,781; Kellam-Shafer Co., Schenectady, $26,189 (awarded contract).

★**Rochester, N. Y.**—Following are 5 lowest bids opened Apr. 14 by Bd. Contract and Supply (F. X. Pifer, Secy.) for constructing a sewage disposal plant for the Brighton Dist.: R. T. Ford Co., $68,049 (awarded contract); Thos. Holahan, $89,241; I. M. Ludington Son, Inc., $86,739; Desiderio & Sattler, $88,686; Whitmore, Rauber & Vicinus, $89,928.

Syracuse, N. Y.—Local press reports state that work will begin early this summer on the new Huntley track sewer; total cost, about $112,000.

★**Rochester, N. Y.**—Following are bids opened by the Bd. Contract and Supply Apr. 7 for Main and Front Sts. sewers: (a) Meyers & McWilliams, $138,850; (b) Ripton & Son, Rochester, $117,715 (awarded contract); (c) Whitmore, Rauber & Vicinus, $130,365; (d) Leary & Morrison, $132,080; (e) M. Murphy, $133,965.

	(a)	(*b)	(c)	(d)	(e)
1,000 cu. yds. earth ex. in open trench and pits.	$1.50	$1.50	$1.00	$1.50	$2.00
600 cu. yds. earth ex. in shafts	5.00	4.00	3.00	4.00	3.00
1,500 lin. ft. lateral tunnel in rock 4x5 ft.	16.00	10.00	11.00	9.50	12.00
20 cu. yds. rock excav. in open trenches	6.00	4.00	4.00	6.00	4.00
800 cu. yds. rock ex. in shafts	8.00	11.00	7.90	10.50	8.00
8,500 cu. yds. rock ex. in tunnel	9.50	8.00	10.40	9.20	9.90
800 cu. yds. concrete masonry	10.00	7.00	6.00	10.00	8.00
320 cu. yds. concrete masonry in outlet sewer	8.00	14.00	7.00	14.00	15.00
100 cu. yds. brick masonry	17.00	16.00	14.00	15.00	12.00
100 lin. ft. drill. in earth with c. i. pipe	7.00	10.00	2.00	6.00	3.00
200 lin. ft. drilling 10 in. shaft in rock	5.00	10.00	10.00	15.00	4.00
1,000 lbs. steel reinforcing	.05	.05	.10	.10	.10
500 lbs. wrought iron	.04	.06	.06	.08	.10
200 lin. ft. 12 in. vit. pipe, laid	1.50	.50	1.50	1.40	1.00
10 cast iron manholes set in place, each	15.00	12.00	12.00	15.00	11.50
1,500 lin. ft. 18 in. split tile invert	.80	.50	.50	.90	.75
2,500 lin. ft. 24 in. split tile invert	1.00	.75	.60	1.10	.90
Pumping, bailing and draining (lump sum)	100.00	.....	500.00	1,200.00	1,800.00
Connection n. end of Front (lump sum)	380.00	230.00	50.00	200.00	175.00
Connection Andrew and Front (lump sum)	180.00	250.00	100.00	160.00	125.00
Connection Market and Front (lump sum)	700.00	750.00	600.00	800.00	350.00
Connection Front and Main (lump sum)	600.00	750.00	400.00	530.00	325.00
Connection Main and Aqueduct (lump sum)	400.00	150.00	50.00	160.00	80.00
Connection Main and Exchange (lump sum)	600.00	600.00	300.00	370.00	225.00
Connection Main and Fitzhue (lump sum)	625.00	400.00	300.00	360.00	475.00
Con. Fitzhue st. sewer at Fitzhue (lump sum)	390.00	50.00	25.00	100.00	25.00
Con. Main St. sewer at Scott Alley (lump sum)	400.00	550.00	350.00	660.00	375.00
Con. Scott Alley at Scott Alley (lump sum)	325.00	100.00	50.00	70.00	80.00
Con. Montgomery Alley (lump sum)	100.00	250.00	50.00	170.00	80.00
Connection at Bennett Alley (lump sum)	100.00	250.00	50.00	180.00	80.00

Monmouth Beach, N. J.—Bids desired until Apr. 30 by Jesse W. Potter, Boro. Clk., for furnishing in carload lots, No. 1, Ohio deep and wide terra cotta pipe and specials, 6, 8, 10 and 12-in.

Newark, N. J.—Bids desired until May 11 by Passaic Valley Sewerage Comrs., Newark (Wm. M. Brown, Ch. Engr.) for constructing northerly portion of Sec. 19, Acquackanonk-Garfield-Passaic Branch Intercepting sewer, Boro. Garfield, requiring earth excavation and refilling in trench for 33-in., 30-in. and 27-in. concrete sewer, in all 6340 lin. ft.; earth excavation and refilling in trench for 18-in. pipe and concrete sewer, including vitr. pipe, etc., 460 lin. ft.; concrete masonry in trench, Portland cement mortar, 1850 cu. yd.; brick masonry in manholes, laid with Portland cement mortar and appurtenant work, 200 cu. yd.; rock excavation in trench, 100 cu. yd.

Summit, N. J.—Alex Potter, of New York, engaged to prepare plans for changes at sewage pumping station; cost about $20,000.

Philadelphia, Pa.—Bids desired until Apr. 29 by M. L. Cooke, Dir. Dept. Pub. Wks., for branch and main sewers, Schedules A to D, and Schedule E, shafting and belt mule drive over engine No. 1, at Pennypack Creek Pumping Station, advertised in Engineering Record. Plans on file (for reference) at New York office of Engineering Record.

Pittsburgh, Pa.—Bids desired until Apr. 29 at office of City Comptroller, to construct 54 and 60 in. brick relief sewer from present sewer in 42d St. to Allegheny River. Estimated cost $14,000.

★**Richmond, Va.** — Contract awarded Apr. 2 for constructing section Bacon Quarter Branch sewer, to L. Hankins, Richmond, at $54,671. Next 3 lowest bids: B. L. Payne, Richmond, $60,628; Jas. Ferry & Sons, Baltimore, Md., $63,204; Alsop & Pierce, Newport News, $63,353. In addition to above amount the cost of material to be furnished by city will be: Cement, $6,662; pipe, $530. Chas. E. Bolling, City, Engr.

Walterboro, S. C.—See "Waterworks."

Winnsboro, S. C.—See "Water Works."

Birmingham, Ala.—City Council considering constructing sewers at Acipco to cost $14,000.

Mobile, Ala.—City Council has adopted a resolution providing for construction of a trunk line sewer to take care of the Camp Ground Dist. and the Fisher tract.

Hammond, La.—City Comn. reported to be considering issue of $33,840 bonds for construction of a sewer system.

Cincinnati, O.—Bids desired until May 3 by Director Pub. Service (Parke S. Johnson, Secy.) to construct sewers in portions of Kling and Mignon Aves.

Quincy, O.—Smith & Boulay Co., 320 Nasby Bldg., Toledo, have been engaged to prepare plans and specifications for a sanitary sewer system and sewage disposal plant. Proposition will be submitted to voters.

Toledo, O.—Bids desired until May 7 by County Comrs. to furnish material and construct Main Sanitary Sewers No. 11, Sub-Dist. No. 2, Main Sewer Dist. No. 3, to consist of about 3.3 miles vitr. pipe sewer from 8 to 30 in. inside diam., together with necessary manholes, flush tanks, etc. Chas. J. Sanzenbacher, Co. Aud.

South Bend, Ind.—Wm. Moore, City Engr., estimates cost of constructing Michigan St. trunk sewer, Lasalle Ave. to South St., at $50,000.

Green Bay, Wis.—Bids desired until May 4 by Com. on. Sewers and Plumb. of the Common Council (J. Shaughnessy, Chmn.) for constructing a 12, 24, 30, 36 and 42 in. sewer in Irwin St.

★**Janesville, Wis.**—Contract awarded Apr. 16 by the Bd. of Public Works (Jas. A. Fathers, Mayor, Chmn.) for construction of sewers in Sewerage Dists. 5, 10, 11, 14 and 15, aggregating about 5139 ft., 8, 10 and 12 in. pipe sewer at 50 and 55 cts. per lin. ft.; average cut 8¾ ft., to G. W. Mulholland of Milwaukee; work includes 13 manholes and 6 lampholes. C. V. Kerch, City Engr.

★**Milwaukee, Wis.**—Contract is reported to have been finally closed by Sewer Comn., with Jones & Erbeck, of Pittsburgh, Pa., for building Milwaukee River low level sewer on both east and west sides of river. Contracts 9 and 11, at $282,594 and $193,837 respectively. (Bids for this work were opened Feb. 24.) For unit prices on both contracts see Engineering Record of Mar. 13.

Bids desired until April 28 by Comr. Pub. Wks. (Percy Braman, Deputy Comr.) for constructing pipe and brick sewers in portions of several streets, in all about 4000 ft.

Platteville, Wis.—This city will construct 5000 ft. of sanitary sewers this summer.

Ames, Ia.—Bids desired until May 3 by A. B. Maxwell, City Clk., for 6560 ft. 8-in. vitr. clay pipe, sewer and 6560 ft. 6-in. agricultural drain tile subdrain and 15 manholes, 5 combined manholes and flush tanks on portions of several streets, including 5th St., Walnut and Duff Aves.

Tripoli, Ia.—Official reports state bids will be opened May 3 by H. W. Brockhaus, City Clk., for furnishing material and constructing sanitary sewer, sewer outlet and sewage disposal plant. Probable cost, $35,000. Engineers, M. Tschirgi & Sons, Cedar Rapids.

Eveleth, Minn.—This city will probably spend this year about $20,000 on a septic tank, according to plans of Consulting Engr., Edw. Bass, of the University of Minneapolis.

New Ulm, Minn.—Bids desired until May 5 at office of Wm. Backer, City Clk., to furnish material and construct sanitary and storm water sewers, totaling approximately 6765 ft. 10 to 42-in., located in Bway., German, Minnesota, Washington, 6th and 4th Sts. F. D. Minium, City Engr.

★**St. Cloud, Minn.**—Contract awarded Apr. 13 for constructing sewers in Sewer Dist. No. 6, requiring 10,063 ft. 8 and 15 in. pipe sewers, 28 manholes and 4 flush tanks, to H. J. Cathroe, Omaha, Neb. Geo. C. Magnuson, City Clk.

Lincoln, Neb.—Bids desired until Apr. 27 by Theo. H. Berg, City Clk., to construct sewers in Sewer Dist. No. 158, being sewers between 7th and 16th Sts. and South and Van Dorn Sts. City Engineer's estimate of cost of this work is $8,600 for the new work and $400 for relaying 900 ft. 12 in. pipe sewer.

Boseman, Mont. — See "Paving and Roadmaking."

★**Roundup, Mont.**—Contract reported awarded Apr. 5 for sewer system, to include 20,000 ft. 8, 10 and 12-in. pipe, to Security Bridge Co., Minneapolis, Minn., at $25,215.

Houston Heights, Tex.—Bids desired until May 10 by J. B. Marmion, Mayor, and Council to construct storm sewers to consist of approximately 1400 ft. 84-in. and 600 ft. 36-in. sewer, with necessary inlets, outfall, etc. Howe & Wise, Engrs., First Natl. Bank, Houston.

Spokane, Wash.—Following are reported to be lowest bids opened Apr. 8 by Bd. Pub. Wks., on the Northern Pacific grade separation sewer changes: W. J. Hoy & Co., Spokane, $23,500; P. L. Langan, Spokane, $28,064 Jas. C. Board, $41,965 and Hurd & Decamp, Spokane, $43,695.

★Items marked thus give the names of parties awarded contracts.

Butte, Mont.—W. J. Flood, Comr. of Pub. Wks., writes bids were recently opened for constructing sewer system south of Silver Bow Creek, and 14 bids were submitted, ranging from $88,467 to $119,719.

★Following are unit prices of 5 lowest bids: (a) Robt. Metcalf (awarded contract), (b) P. G. Dunn, (c) Kennedy Constr. Co., (d) R. M. Barsden & Co., (e) C. L. DeVail.

	*(a)	(b)	(c)	(d)	(e)
38,740 lin. ft. 8-in. pipe	$1.19	$1.20	$1.19	$1.25	$1.35
20,905 lin. ft. 10-in. pipe	1.22	1.40	1.38	1.58	1.50
6,166 lin. ft. 12-in. pipe	1.35	1.60	1.63	1.87	1.65
406 lin. ft. 15-in. pipe	1.75	1.80	1.82	2.20	2.00
156 manholes	47.50	45.00	60.00	65.00	68.00
2 flush tanks	75.00	200.00	150.00	125.00	113.00
767 risers	.35	.25	.75	1.50	.80
Totals	$88,467	$93,963	$95,974	$105,419	$106,090

Seattle, Wash.—A. H. Dimock, City Engr., reported to have completed plans for sewer on Ballard Ave. and Market St.; cost $25,000.

★**Tacoma, Wash.**—Contract reported awarded for constructing sewer on E. D St., S. 31st St. and Pacific Ave. to the Pacific Sewer & Watermain Constr. Co., Tacoma, at $10,744.

San Francisco, Cal.—City Engineer has recommended to the Bd. of Works that money in sewer bond fund be apportioned as follows: For Islais Creek sewer from Mt. Vernon Ave. to Oneida, $50,000; for 5th St. sewer bet. Howard and Brannan Sts., $87,000.

Finance Com. has been asked to provide in yearly budget for the following: Stanley St. sewer and outlet, to drain the westerly slope of Ocean View, cost $35,000; College Hill tunnel, to divert sewage from Islais Creek to main sewer running north, cost $150,000; the South Bay View sewer, to cost $50,000; Laguna Puerca sewer, to cost $125,000; the 7th Ave. extension, to cost $10,000 and a new sewer and outlet for Fillmore St., to cost $175,000.

★**Phoenix, Ariz.**—Contract reported awarded to Thos. M. Torson, Kansas City, Mo., for construction of sewer system at Phoenix Indian School and Sanitorium, at Phoenix, for about $22,347.

Hamilton, Ont.—Bids desired until Apr. 27 by S. H. Kent, City Clk., for one centrifugal pump, for pumping raw sewage, capacity 8,000,000 imperial gals. per 24 hrs., and one synchronous motor, 150 h.p. with switching apparatus, and all accessories complete, for direct connection to centrifugal pump for Gage Ave. sewage pumping station.

Toronto, Ont.—Bids desired until Apr. 27 by T. L. Church, Mayor, Chmn. Bd. Control, for constructing sewers in portions of Blackthorn, Hallawell, Osler and Prescott Aves. and Sunnyside Ave. storm overflow sewer, Sect. No. 1.

BRIDGES.

Items Arranged Geographically

Springfield, Mass.—City Council grants approval of Connecticut River bill passed by State Legislature providing for appointment of Commission to select site and award contract for bridge to be constructed over Connecticut River.

Lackawanna, N. Y.—Plans and specification have been adopted by Common Council for constructing Kirby and Center St. Bridges; cost $13,000.

Lancaster, N. Y.—Bids desired until May 3 by F. H. Maute, Town Clk., for constructing reinforced concrete arch bridge over Cayuga Creek, at Bway.

New York, N. Y.—Lowest bid opened Apr. 15 by F. J. G. Kracke, Comr. Bridges, for equipment of the westerly tracks of the upper decks of Manhattan Bridge, was submitted by the Vulcan Rail & Constr. Co., 35 Meserole Ave., Brooklyn, at $148,397 (contract not let yet).

Niagara Falls, N. Y.—City Engineer estimates cost of constructing bridge at 2d St., at $35,000.

★**Camden, N. J.**—Contract awarded Apr. 12 for constructing 2 concrete arches on Kings Highway as follows: Over Cooper River, to C. A. Hennesy, Burlington, at $7,825 and over North Branch, to Rees-Taylor Co., Trenton, at $7,418. Fred W. George, Clk. Bd. Chosen Freeholders.

Matawan, N. J.—Bids will be received by Bd. Chosen Freeholders at Freehold, about June 1, for constructing drawbridge over Matawan Creek on Keyport and South Amboy Rd.; cost about $40,000.

Lancaster, Pa.—It is proposed to repair highway bridge, 90-ft. span, 16-ft. roadway, steel stringers, wood block roadway or creosoted plank, including painting. P. A. Shaw, Consulting Engr., Lancaster.

Marcus Hook, Pa.—Bids reported desired until May 3 by County Comrs., Media (John Griffin, Clk.) for a reinforced concrete bridge on Post Rd. over Hook Creek.

Norristown, Pa.—County Comrs. voted to construct concrete bridge over Stony Creek at Stanbridge St., cost about $30,000.

Cumberland, Md.—Bids desired by Jas. P. Gaffney, City Engr., until May 3 for rebuilding bridge across Wells Creek at Market St., to be of reinforced concrete, have 2 spans 65 ft. ea., 34 ft. wide; cost $10,000. B. W. Davis, Engr., New York.

Easton, Md.—Lowest bid opened Apr. 13 by County Comrs. (Jos. B. Harrington, Clk.) for constructing concrete bridge on Tunis Mills Road, known as Leeds Creek Bridge, was submitted by Aug. Coster, Law Bldg., Norfolk, Va., at $17,973. Frank W. Seth, Co. Roads Engr.

Georgetown, Del.—The Levy Court of Sussex County has authorized Morgan T. Gum, County Road Engineer, Georgetown, to prepare plans for a new bridge at Wooden Hawk over the Marshy Hope Creek, to cost about $5,000. This is a highway bridge, concrete piers and abutments, steel I-beams.

★**Lake Charles, La.**—Contract awarded Apr. 5 for constructing steel highway swing bridge to Vincennes Bridge Co., of Vincennes, Ind., at $6,396. Next 3 lowest bids: Harrison & Baum, Memphis, Tenn., $6,466; Blodgett Contr. Co., Kansas City, Mo., $6,548; Midland Bridge Co., Kansas City, Mo., $6,606. Fred Shutts, Parish Engr.

Memphis, Tenn.—Permission was granted by Public Service Comn., Missouri, to Memphis Ry., Bridge & Terminal Co. to issue $7,500,000 bonds to build bridge across Mississippi River at Memphis. Bridge to be built by St. Louis, Iron Mountain & Southern, the St. Louis, Southwestern and Chicago, Rock Island & Pacific Ry. Cos.

Nashville, Tenn.—F. E. Freeland, of the Freeland & Klyce Eng. Co., 65 Life and Casualty Building, Nashville, has been engaged by a special committee of Davidson County Court to prepare plans, specifications, estimates of cost and supervise and inspect construction of a bridge over Cumberland River at Hydes Ferry.

The Tennessee State Legislature has authorized Davidson County to issue bonds in the sum of $250,000 for construction of the above bridge.

★**Bryan, O.**—Contract awarded by Co. Comrs. April 13 for constructing 4 bridges to Elkhart Bridge & Iron Co., Elkhart, Ind., at $5,756; and to Brookville Bridge Co., Brookville, for Schmucker Bridge, $4,470. C. R. Lowe, Co. Aud.

★**Canton, O.**—Contract for construction of the James Steel Concrete Arch on the Massillon-Millersburg Road in Tuscarawas Township (bids opened Apr. 14), has been awarded to F. E. Heisler, Massillon, at $5,050. Next 3 lowest bids: Ph. Dieffenbacher & Sons, Massillon, O., $5,095; A. E. Limbach, Minerva, O., $5,285; Geo. W. Luke, Canton, $5,523.

Cleveland, O.—Bids desired until May 5 by County Bd. Comrs. (E. G. Krause, Clk.) to construct bridge per Report No. 3507. W. A. Stinchcomb, Co. Surveyor.

Struthers, O.—Bids reported desired until May 10 by County Comrs., Youngstown (F. H. Vogan, Clk.) to construct a reinforced concrete bridge about 70 ft. in length over Yellow Creek, Struthers.

Toledo, O.—See "Paving and Roadmaking."

Converse, Ind.—Bids reported desired until May 5 by County Comrs., Peru, to construct a steel or concrete bridge at Converse. Probable cost, $7,000. Frank E. McElheny, Co. Aud.

Dayton, Ind.—Bids reported desired until May 5 by County Comrs., La Fayette, to construct a reinforced concrete or steel bridge at Sycamore Crossing near Dayton. Probable cost $4,000.

Indiana—Bids desired by County Commissioners for constructing bridges as follows:

Until May 3:
Jasper, 3 steel bridges. J. H. Seng, Co. Aud.
Until May 4:
Salem, 5 concrete bridges and 2 fills. Ira H. Butterfield, Co. Aud.
Rochester, 5 steel bridges in Liberty Township. W. C. Miller, Co. Aud.
Petersburg, an 80-ft. steel bridge. John D. Gray, Co. Aud.
Until May 14:
Crown Point, a Strauss trunnion bascule bridge in East Chicago. E. Simon, Co. Aud.

Winamac, Ind.—Bids desired May 4 by the County Comrs for construction of 13 bridges ranging in length from 6 to 50 ft.; total estimated cost, $9,000. C. E. Paul, Co. Surveyor.

Illinois.—Bids desired until Apr. 30 by A. R. Carter, Co. Supt. Highways, Rockford, for constructing a reinforced concrete bridge in Owen Township, known as Allen Bridge, to have 16-ft. span, 24 ft. roadway, 13,470 lbs. reinforcing steel, and cost $2,600.

Bids desired until May 5 by State Highway Comn., Springfield, for constructing bridges in Shelby County, Sects. B, C and D; cost, $3,726, $3,585 and $3,063 respectively. No materials furnished by State.

★Contracts for concrete bridges in Carroll County, Ill., were awarded Apr. 17 as follows: Shannon Township, to W. H. Shons, Freeport, at $1,487; Lima and York Township, to W. C. Kirenan & Co., Whitewater, Wis., $1,805; Rock Creek Township, to W. H. Shons, Freeport, $2,697, and Salem Township, to Walesby & Cammie, 7334 Emerald Ave., Chicago, $3,335. L. P. Scott, Supt. of Highways, Mt. Carroll.

Madison, Wis—It is reported that a concrete viaduct will be constructed on highway between Madison and Middleton, to be paid for by the County, Township and St Paul Ry.

Milwaukee, Wis.—Citizens voted to issue $240,000 bonds for constructing bridge over Milwaukee River at North Ave.

Forest City, Ia.—Bids desired until May 11 by C. K. Nelson, Co. Aud., for constructing 2 bridges, advertised in Engineering Record.

Ft. Dodge, Ia.—Bids desired until May 5 by J. L. Hanrahan, Co. Aud., for 20 bridges and culverts. Probable total cost $27,000. G. P. Smith, Co. Engr.

Waukon, Ia.—Bids desired by County Auditor until May 4 for one 80-ft. steel bridge with concrete abutments; one 70-ft. steel bridge with concrete abutments, and for grading and culverts on Sect. D of Waukon-Pottsville Road. For further information address Harry O. Orr, County Highway Engr., Waukon.

★**Robert Lee, Tex.**—Contract awarded Apr. 12 for constructing 2 bridges to Missouri Bridge & Iron Co., Dallas, at $8,770. Next 3 lowest bids: Newton & Co., Weatherford, $8,554; Hess & Skinner, Dallas, $9,709; Austin Bros., Dallas, $9,775. Roy Taylor, Co. Clk.

Tulsa, Okla.—Bids desired May 4 by Lewis Cline, Co. Clk., for $200,000 county bridge bonds, advertised in Engineering Record.

Citizens, on April 12, voted to issue the above bonds, to be used for constructing a concrete arch bridge. R. K. Hughes, Co. Engr.

Ashford, Wash.—Bids desired until May 4 at office of Mark Daniels, Genl. Supt. National Parks, Monadnock Bldg., San Francisco, for furnishing all labor and material which shall be required to construct a reinforced concrete bridge over Tahoma Creek in Mt. Ranier National Park, Wash., together with riprap work and road construction in connection with same. Copies of plans and specifications may be obtained from the supervisor of the Park at Ashford or from Mr. Daniels.

Okanogan, Wash.—County Comrs. have directed Bowerman & McCloy, Mutual Life Bldg., Seattle, to prepare plans and specifications for steel bridge with concrete piers to be constructed over Okanogan River, near Riverside; cost about $10,000.

Tacoma, Wash.—Bids reported desired May 8 by Thos. N. Morris, Co. Aud., for furnishing material and constructing Bridge No. 19196-A across South Prairie Creek, consisting of a frame trestle 145 ft. long and a steel span 60 ft. long, on concrete piers with approaches, etc.

Portland, Ore.—Bids reported desired May 3 by Co. Comrs. at Portland, for constructing the reinforced concrete viaduct on Columbia Highway near Eagle Creek.

★**Colusa, Cal.**—Bd. County Supervs. awarded contracts for constructing concrete bridges as follows: Over trough 5 miles northeast of Colusa to Duncanson-Harlson Co., San Francisco, at $33,000; ver trough at Maxwell to C. E. Cotton, San Francisco, at $7,840, and 35 bridges in other sections of county to Duncanson-Harlson Co., at $28,988.

★**San Francisco, Cal.**—Contract for alterations to 3d St. Bridge awarded by Works Board to Monson Bros., at $6,780.

Fredericton, N. B.—Contract for constructing substructure bridge over Petitcodiac River at Moncton awarded by Minister Public Wks. to Foundation Co., Ltd., Montreal, Que., at about $200,000.

PAVING AND ROADS.

Items Arranged Geographically

Massachusetts.—Bids desired Apr. 27 by Massachusetts Highway Comn. (Wm. D. Sohier, Chmn.) for surfacing sections of highway as follows:

Town of Somerset, 7,400 ft.
Reading, 8,500 ft.
Beverly, 4,700 ft.
Dighton and Taunton, 6,100 ft.
Somerset and Swansea, 8,100 ft.
Rehoboth, 6,200 ft.

Connecticut.—State Highway Comr. Chas. J. Bennett has awarded contract for construction of about 21,923 ft. of reinforced concrete road on New London-Westerly road in Stonington to the A. Vito Construction Cor., of Thompson, Conn., at $70,637.

Albany, N. Y.—Bids desired until May 11 by Edwin Duffey, State Comr. Highways, 55 Lancaster St., Albany, for repairs to certain highways, advertised in Engineering Record.

Albany, N. Y.—Following are lowest bids opened Apr. 14 by State Highway Comn., 55 Lancaster St., for construction of public highways by State aid:

Road No. 1229, Knox-Berne, Albany County, 2.80 miles: John Arborio, New Haven, Conn., $24,016; Highway Eng. Co., Inc., Albany, $24,815; S. B. Van Wagonen, Inc., Rondout, $25,273; Amos D. Bridges Sons, Inc., Hazardville, Conn., $25,332.

Road 1246, Friendship-Bolivar, part 2, Allegany County, 6.71 miles: Grennfield Constr. Co., Hornell, $96,379; Sullivan Constr. Co., Syracuse, $101,815; Jas. E. Martin, Utica, $101,845; John Johnson Constr. Co., Buffalo, $101,914.

Road 1177, Raybrook-Lake Placid, Essex County, 5.34 miles: S. B. Van Waganen, Inc., Rondout, $52,042; Rumpf & Stevens, Lake Placid, $53,114; Harold J. Shields, Albany, $53,251; C. W. Tryon, Boynton-ville, $55,185.

Road 1250, Moody-Hamilton County Line, Franklin County, 5.50 miles: Spuyten-Duyvil Constr. Co., New York, $73,054; Fulton Eng. Co., Inc., Albany, $73,851; Richard Hopkins, Troy, $75,611.

Road 1251, Gabriels-Bloomingburg, part 1, Franklin County, 4.191 miles: Rumpf & Stevens, Lake Placid, $41,417; John F. Lewis, Albany, $42,542; Wm. J. Morrissey, Saratoga, $42,723; Flood & Van Wirt Co., Hudson Falls, $45,361.

Road 1252, Santa Clara-Lake Meacham, Franklin County, 11.41 miles: Spuyten-Duyvil Constr. Co., New York, $104,999; Busch & Percival, Buffalo, $118,930; Richd. Hopkins, Trop, $120,471; Jas. E. Martin, Utica, $129,824.

Road 5507, Scottsville-Canawaugus, Part 1, Monroe County, 2.14 miles: Brooks & Julian, Rochester, $18,357; W. J. Fox, Oramel, $18,978; P. H. Murray, Rochester, $19,309; Greenfield Constr. Co., Hornell, $19,649.

Road 1236, Buckbee Corners-North Chili, Monroe County, 1.87 miles: Whitmore-Rauber & Vicinius, Rochester, $20,974; Brooks & Julian, Rochester, $20,997; Ribstine-Holter Co., Inc., Rochester, $21,161; Geo. Holler, Albany, $21,271.

Road 1158, Thomsons Corners-Taberg, Oneida County, 2.65 miles: Greenfield Constr. Co., Hornell, $51,530; A. J. Rockwood, Rochester, $55,678; Dale Eng. Co., Utica, $55,820; C. W. Tryon, Boyntonville, $55,874.

Road 1243, Central Square-Constantia, Part 1, Oswego County, 5.41 miles: Harradine Bros. Co., Inc., Spencerport, $42,454; Michl. Murphy, Rochester, $43,694; Thos. Grady, Rochester, $44,178; Pathfinder Constr. Co., Inc., Fulton, $44,941.

Road 1244, Phoenix-Mexico, Part 2, Oswego County, 5.22 miles: Valley Constr. Co., Sidney, $45,069; Pathfinder Constr. Co., Inc., Fulton, $45,141; Monroe Roads Co., Pittsford, $47,853; Dale Eng. Co., Utica, $48,966.

Road 1245, Fulton-Hannibal, Part 2, Oswego County, 3.66 miles: J. A. Culkin, Oswego, $29,452; Pathfinder Constr. Co., Inc., Fulton, $29,559; Monroe Roads Co., Pittsford, $30,358; Thos. Grady, Rochester, $30,580.

Road 5535, Ogdensburg-Waddington, Part 2, St. Lawrence County, 6.66 miles: [illegible] Co. Binghamton, $65,818; W. T. Thayer Co., Chateaugay, $68,461; Eggleston & Garthwaite, Yonkers, $69,480; Sempter Bros., Watertown, $69,620.

Road 5410, Warsaw-Pavilion, Parts 3 and 4, Wyoming County, 3.88 miles: John Johnson Constr. Co., Buffalo, $40,084; Morrison & Quinn, Inc., Rochester, $41,311; Jas. Rossney, Buffalo, $41,382; Thos. F. Murray, LeRoy, $41,387.

Albany, N. Y.—Following are lowest bids opened Apr. 20 by the State Highway Comn., for repair of public highways by State Aid:

Rep. Con. 705, Guilderland-Guilderland Center, Albany County: Alonzo Schaupp, Guilderland, $8,286; Raymond Horne, New York, $8,339; J. J. Malloy, Schenectady, $8,439; John P. Dugan & Co., Amsterdam, $8,610.

Rep. Con. 695, Deposit-Windsor-Deposit, Broome County: Geo. Holler, Albany, $9,911; McGreevey, McGuigan & Baum, Elmira, $10,127; I. B. Contr. Cor., New York, $10,153; Ruddy-Saunders Constr. Co., Troy, $10,353.

Rep. Con. 694, Bainbridge-Unadilla, Part 2, Chenango County: Geo. Holler, Albany, $2,291; I. B. Contr. Cor., New York, $2,483.

Rep. Con. 707, Plattsburgh-Moers, Part 2, Clinton County; John F. Lewis, Albany, $30,435; Boynton & McNally, Keeseville, $33,209; Bluff Point Stone Co., Plattsburgh, $34,591; Flood & Van Wirt Co., Hudson Falls, $34,643.

Rep. Con. 691, Grand Gorge, Delaware County: I. B. Contr. Cor., New York, $1,941; Geo. Holler, Albany, $2,102.

Rep. Con. 706, County Line-Aiden Lair, Part 1, Essex County: W. L. Lawton, Glens Falls, $20,961; Santononi Contr. Co., Inc., Newcomb, $21,450; Flood & Van Wirt Co., Hudson Falls, $21,954; Langan Constr. Cor., Albany, $23,382.

Rep. Con. 611, Jordan Valley, Part 1, Onondaga County: Pathfinder Constr. Co., Inc., Fulton, $5,471; Chas. E. Hanney, Camillus, $5,603.

Rep. Con. 698, Valley Road-Camillus, Onondaga County: Chas. E. Hanney, Camillus, $8,655; Pathfinder Constr. Co., Inc., Fulton, $8,774; Harold J. Shields,

★*Items marked thus give the names of parties awarded contracts.*

Albany, $9,149; Flood & Van Wirt Co., Hudson Falls, $9,266.

Rep. Con. 699, Skaneateles-Spafford, Onondaga County: Pathfinder Constr. Co., Inc., Fulton, $9,595; Harold J. Shields, Albany, $10,663; Flood & Van Wirt Co., Hudson Falls, $10,721; Monroe Roads Co., Pittsford, $10,855.

Rep. Con. 700, Fulton-Volney, Oswego County: Pathfinder Constr. Co., Inc., Fulton, $9,755; Bison City Eng. & Contr. Co., Inc., Buffalo, $9,854; Thos. Bucknall & Co., Albion, $10,549; Paddleford & King, Sherburne 10,722.

Rep. Con. 697, Shady Side-Otego, etc., Otsego County: Geo. Holler, Albany, $9,971; Edw. Hartney, Modena, $10,581; De Barber & Hill, Fulton, $11,124; C. S. Mathusa, Albany, $11,385.

Rep. Con. 709, Troy-Brunswick, Part 3, Rensselaer County: C. W. Tryon, Boyntonville, $11,927; Thos. H. Karr, Troy, $12,302; Geo. Holler, Albany, $12,704; Belmar Contr. Co., Inc., Troy, $12,795.

Rep. Con. 708, Saratoga-Schuylerville, etc., Saratoga County: Wm. J. Morrissey, Saratoga, $20,193; W. L. Lawton, Glens Falls, $20,458; Thos. Leonard, Saratoga Springs, $20,503; Brown & Lowe Co., Schenectady, $21,171.

Rep. Con. 692, West Berne-Gallupville, Schoharie County: Geo. Holler, Albany, $5,599; I. B. Constr. Cor., New York, $6,469; C. S. Mathusa, Albany, $6,604; Lynden Contr. Co., Albany, $6,811.

Rep. Con. 702, Reservation Road-Fayette, Seneca County: Thos. F. Murray, Le Roy, $21,324; Flood & Van Wirt Co., Hudson Falls; $22,860; Monroe Roads Co., Pittsford, $23,677; Wood & Tompkins, Hilton, $23,828.

Rep. Con. 696, Liberty-Jeffersonville, Part 1, Sullivan County: Ruddy-Saunders Constr. Co., Troy, $12,445; John A. Jova, Inc., Newburgh, $12,884; G. C. Bonnell, Liberty, $12,892; Eggleston & Garthwaite, Yonkers, $12,935.

Rep. Con. 704, Amityville-Babylon, Suffolk County: J. J. Guinan Contr. Co., Brooklyn, $16,343; John K. Hayes Constr. Co., Yonkers, $16,884; H. J. Mullen Contr. Co., Inc., Jamaica, $17,444; Gifford Constr. Co., Jamaica, $17,904.

Rep. Con. 710, North Creek-County Line, Warren County; W. L. Lawton, Glens Falls, $19,907; Santononi Contr. Co., Inc., Newcomb, $20,334; Flood & Van Wirt Co., Hudson Falls, $21,117; Langan Constr. Co., Albany, $21,529.

Rep. Con. 703, Walkill-Red Creek, Wayne County: Sweeney & Boland, Rochester, $3,000; J. H. Weidman, Syracuse, $3,142.

Rep. Con. 711, Castile Center-Perry Center, Wyoming County: McCarthy & Wall, Mt. Morris, $8,572; Thos. F. Murray, Le Roy, $8,796; I. M. Ludington Sons, Inc., Rochester, $8,817; Brooks & Julian, Rochester, $9,099.

Buffalo, N. Y.—See "Sewerage and Sewage Disposal."

Canastota, N. Y.—Bids reported desired until Apr. 27 for 5227 yds. brick pavement and 2226 yds. sandstone block paving. M. J. Hutton, City Engr.

Newburgh, N. Y.—Bids desired May 4, for about 9800 yds. of street paving for the Newburgh and Cohecton turnpike. Bids will be received on brick, asphalt block, bitulithic and concrete. W. J. Blake, City Engr.

New York, N. Y.—The following streets are to be repaved in the immediate future in Manhattan Boro (Marcus M. Marks, Pres. Manhattan Boro):

Sheet asphalt: Dutch St., from John to Fulton; 15th St., from Ave. A to 3d Ave.; 32d St., from 2d Ave. to 3d Ave.; 40th St., from 2d Ave. to Lexington Ave.; 176th St., from Audubon Ave. to St. Nicholas Ave.

Granite pavement: Houston St., from Lafayette St. to Crosby St.; 30th St., from 9th Ave. to 10th Ave.; 32d St., from 1st Ave. to 2d Ave.; 38th St., from 1st Ave. to 2d Ave.; 40th St., from 1st Ave. to 2d Ave.

Bids desired until Apr. 29 by Douglas Mathewson, Pres. Bronx Boro., for repairing asphalt black pavt. and setting curb, in Boro. Bronx, about 2500 sq. yds. completed asphalt block mortar and concrete foundation and 6000 sq. yds. on present foundation, 350 lin. ft. old curb reset; also furnishing and delivering about 175 tons asphaltic cement.

Oswego, N. Y.—Bids desired by Chas. W. Linsley, Comr. of Public Works, until May 1 for 4 paving contracts; brick paving 5400 sq. yds. and resurfacing with brick 2300 sq. yds.

Phelps, N. Y.—Bids desired until Apr. 26 by P. V. Keefe, Village Clk., for $21,000 bonds, to be used for paving Main St. with brick.

★**Rochester, N. Y.**—Contract for paving with asphalt Culver Rd. awarded by Bd. Contract & Supply to Frank V. Brotsch, at $14,324.

★Contracts for paving awarded by Bd. Contract & Supply as follows: Clay St. with asphalt to Warren Bros. Co., Rochester, at $9,666, and Pomeroy and Sawyer Sts. with brick to F. L. Hagaman, at $14,949.

Elizabeth, N. J.—Bids reported desired until Apr. 26 for road work to include 17,700 yds. bituminous concrete and 1085 yds. cobble gutter. Jacob L. Bauer, Co. Engr.

★**Hackensack, N. J.**—Contract for paving Anderson Ave., Broadway Rd. and Kinderkamack Rd. awarded by Bergen County Bd. Freeholders to E. C. Humphrey, Hackensack, at $115,000.

Jersey City, N. J.—Bids desired until Apr. 29 by City Comrs., for repaving Tuers Ave. with asphalt block pavement and Clinton Ave. with wood block pavement.

City Comrs. considering repaving Ocean Ave.; cost about $25,000.

Harrisburg, Pa.—Bids desired until Apr. 27 by State Highway Dept., Harrisburg (Jos. W. Hunter, 1st Deputy), to furnish indeterminate quantites of bituminous material.

Pittsburgh, Pa.—Bids desired until Apr. 29 at office of City Controller for repaving portions of Peach Way, Penn Ave., Forbes, Ella and several other streets.

★**Scottdale, Pa.** — Contract awarded Apr. 16 for paving Pittsburgh, Hickory, Grove and Brooks Sts., to Luther F. Edwards of Greensburg, at $19,889. F. M. Newcomer, Secy. Boro. Council.

Washington, Pa.—Bids desired until May 11 by Co. Comrs. for paving brick or block for construction of certain roads, in all about 52,070 sq. yds., prices to be 1000 f. o. b. cars at certain points. Also separate bids for constructing about 8 miles of roads with necessary culverts and small bridges, bids to be on both concrete and brick wearing surface. Chaney & Armstrong, Co. Engrs., Washington. T. J. Underwood, Co. Compt.

Baltimore, Md.—Bids will probably be called for at once by the City Paving Comn. for paving Covington, Haubert, Beason, Hull and Cross Sts., about 27,500 sq. yds., with sheet asphalt, 1½-in. top, 1½-in. binder, 6-in. concrete base, with vitr. block gutters and crossings.

Cumberland, Md.—Bids desired until Apr. 30 by County Comrs. (Angus Ireland, Clk.) for $30,000 road improvement bonds.

Frederick, Md.—Bids desired until May 11 by County Comrs. (H. L. Gaver, Clk.) for building a section State Aid Highway along the road from the State Rd. at Finger Board to Hyattstown, the road between the Finger Board and Pleasant Grove Schoolhouse, about 1½ miles.

Maryland—Bids desired until Apr. 27 by State Roads Comn., Baltimore (Wm. L. Marcy, Secy.), to construct State highways, aggregating 2.36 miles in length and one fill as follows:

Contr. BC-12, Baltimore City, a section of Park Heights Ave., about 1.3 miles. (Sheet asphalt, brick gutters.)

Contr. BC-17, Sec. 9, Fill for approach to north approach of Hanover St. Bridge, about 23,000 cu. yds. earth excav.

Contr. CE-14A, Cecil County, a section of road through Chesapeake City, about .4 mile. (Concrete.)

Contr. Q-11, Queen Anne's County, a section of road through Centerville, about .83 miles in length. (Concrete or amiesire.)

Portsmouth, Va.—Bids reported desired until May 1 by Co. Bd. Superv. (Alvah H. Martin, Clk.) for $250,000 road purchase and improvement bonds.

Welch, W. Va.—Bids reported desired until May 1 by County Court for $165,000 bonds to be used for constructing roads.

Jackson, N. C.—Bids desired until May 18 by G. A. Moore, Secy. Bd. Road Comrs., for $16,000 Jackson Township road bonds.

Siler City, N. C.—Citizens of Matthews Township voted $50,000 bonds for road improvements.

Key West, Fla.—Bids desired until May 4 by Clerk Bd. Pub. Wks., for furnishing an 8-ton gas engine road roller of most approved type, delivered f.o.b. Key West. Emory L. Pierce, City Engr.

Alabama.—Contract awarded Apr. 13 at Hamilton, Ala., for State Aid Road in Marion County to Boyd & Bradshaw, Hamilton; work includes grading and draining about 3½ miles of road.

Birmingham, Ala.—City Council on Apr. 13 adopted ordinances providing for certain improvements on 1st Ave. from eastern end of viaduct to 41st St.; estimated cost, $37,000.

Russellville, Ala.—Bids reported desired until May 10 by Court of County Revenue (S. J. Petree, Chmn.) to grade, drain and partly gravel about 18 miles on old Fulton Rd. from Russellville to Red Bay.

Friars Point, Miss.—Bids will be opened May 3 at meeting of Bd. Superv. at Friars Point for construction 3 miles gravel road. For information address S. F. Carr, Clk. Chancery Court, Clarksdale.

Alexandria, La.—Bids desired until May 3 by Com. Rd. Dist. No. 2 (J. P. Turregano, Chmn.) to construct approximately 25 miles gravel road in Dist. No. 2 of Rasides Parish. Ira W. Sylvester, Engr., Alexandria.

★**Lake Charles, La.**—Contract for constructing 17-mile highway between Sulphur and De Quincy awarded by Police Jury to Hugh Walker at $20,100. W. A. Sutton, Vinton, secured contract for constructing Vinton-Starks highway at $15,000.

★**Louisiana**—Contract awarded Apr. 10 by Highway Dept., Bd. State Engrs. (Frank M. Kerr, Ch. Engr.), New Orleans Court Bldg., New Orleans, for construction, with gravel, Sect. No. 2, Arkansas Highway, Caddo Parish, a distance of 3 miles, to H. J. Bonnabel, New Orleans, at $14,740. Other bids: S. A. Gano, Jackson, Miss., $15,020; Geo. Epple, Shreveport, $16,130.

Barbourville, Ky.—Bids desired for $200,000 road bonds. Thos. G. Hammons, Co. Judge.

London, Ky.—Citizens of Laurel County voted $100,000 bonds for constructing roads.

★**Bowling Green, O.**—Contract awarded Apr. 12 for paving Ordway, Ada and Evers Sts., to Massman & Green, of Grand Rapids, Mich., at $9,500. Fred Foote, Clk. Service Dept.

Bids desired until May 10 by C. E. Stinebaugh, Co. Aud., for grading, draining and macadamizing 7 roads as follows: Israel Funk Rd., Jackson Township; Long-Judson Rd., Grand Rapids Township; U. G. Ostrander Rd., Montgomery Township; Lewis Albright Rd., Lake Township; Elmer Nelson Rd., Center Township; Sec. 1 and Sec. 2, T. W. Crago Rd., Lake Township. L. H. Wismar, Co. Surveyor.

Canton, O.—Bids opened Apr. 14 by County Comrs. (C. L. Stoner, Clk.) for furnishing material and improving roads as follow:

★Waco-Mapleton Rd., 1,098 miles in length, to include 6637 cu. yds. excav., 19,058 sq. yds. macadam, awarded to Highway Constr. Co., Elyria, for bituminous macadam, slag base, stone top, at $21,211. Other bids: Wise Bros., Canton, $21,603; Seiple & Wolf, Toledo, $22,549; Turnbull Bros., Canton, $27,540. Engineer's estimate, $21,998.

★Navarre Justus Rd., 2.49 miles in length, to include 12,496 cu. yds. excav., 21,898 sq. yds. macadam, awarded to Wise Bros., Canton, for Glutrin bound, slag base, slag top, at $23,551. Other bids on this class of construction: Schneider & Miller, Canton, $25,153; Highway Constr. Co., Elyria, $26,609; Seiple & Wolf, Toledo, $26,815. Engineer's estimate, $24,278.

Castalia, O.—Bids desired until May 6 by L. L. Graves, Clk. Groton Township, R. F. D. No. 2, Castilia, for $15,000 Groton Township Road Dist. Bonds.

Cincinnati, O.—Bids desired until Apr. 30 by County Comrs. (Albert Reinhardt, Clk.), for cleaning and oiling various roads in Hamilton County.

Bids reported desired until May 14 by County Comrs. for repairing East Miami River Rd. Probable cost, $27,134.

Bids desired until May 3 by Ernst Von Bargen, City Purchasing Agent, until May 3 for purchasing 3 15-ton macadam road rollers.

★Contract for improvement of Loveland and Madeira Rd. awarded by County Comrs. Apr. 9 to John Snyder, Jr., at $23,124.

Columbus, O.—Bids desired until May 5 by County Comrs. (John Scott, Clk.), for improving and macadamizing 3 roads as follows: Avery Rd. No. 2, Washington Township; Troesch Rd., Brown and Washington townships; Kidner and Taylor Rd., Blendon and Plain townships. Bids desired until May 7 for grading and macadamizing Ridgeview Rd., Clinton and Perry townships and Reed Rd., Perry Township.

Bids desired until May 4 by Geo. A. Borden, Dir. Pub. Service, for paving with asphalt or brick portions of several streets, including Buttles Ave., 4th, Gay and Olentangy Sts.

Fostoria, O.—About $33,000 Jackson Township road bonds have been sold.

Kinsman, O.—Bids desired until May 17 by Bd. Trus., Kinsman Township (A. T. Root, Clk.), for $40,000 road bonds.

★**McGuffey, O.**—Contract for paving with brick main street of village awarded to Henry S. Enck, Lima, at $17,000.

Napoleon, O. — Henry County Comrs. contemplate repairing 25¼ miles crushed stone roads; cost $69,992.

Ohio.—Bids desired by Clinton Cowen, State Highway Comr., Columbus, until Apr. 30 for the following improvements:

Ashland County, Sec. "H," of Ashland-Loudonville Road. Constructing one 18 x 40-ft. steel bridge at Station 190+73; cost, $1,896.10.

Champaign County, Sec. "L" of Urbana-Sidney Road, Salem and Concord townships. Constructing bridges and culverts, grading roadway and paving with concrete; length, 5280 ft.; width pavt., 14 ft.; cost, $13,381.

Defiance County, Sec. "C," Hicksville-Defiance Road. Constructing the bridges and culverts, grading roadway and paving with waterbound macadam; length, 21,293 ft.; width, 16 ft.; cost, $36,963. Alternative bids also desired for constructing the bridges and culverts, grading roadway and paving with concrete; cost of construction, $51,776.50.

Erie County, Sec. "M" of Milan-Elyria Road, Florence Township. Constructing bridges and culverts, grading roadway and paving with waterbound macadam and concrete; length, 5280 ft.; width, 16 ft.; cost, $15,763.75.

Fulton County, Sec. "E" of Wauseon-Morenci Road, Dover Township. Constructing bridges and culverts, grading roadway and paving with waterbound macadam; length, 5533 ft.; width, 14 ft.; cost, $9,176.

Greene County, Sec. "R" of Dayton-Chillicothe Road, in Silver Creek and New Jasper. Constructing bridges and culverts, grading roadway and paving with waterbound macadam; length, 14,614 ft.; width, 14 ft.; cost, $19,793.85.

Harrison County, Sec. "M" of Cadiz-Carrollton Road, Archer Township. Constructing bridges and culverts, grading roadway and paving with waterbound macadam; length, 8412 ft.; width, 12 ft.; cost, $14,775.

Harrison County, Sec. "N" of Steubenville-Cambridge Road, Cadiz Township. Constructing bridges and culverts, grading roadway and paving with waterbound macadam; length, 2232 ft.; width, 12 ft.; cost, $4,953.

Highland County, Sec. "H" of Milford-Hillsboro Road, in Liberty and Union Townships. Constructing bridges and culverts, grading roadway and paving with waterbound macadam; length, 13,178 ft.; width, 14 ft.; estimated cost, $15,809.

Knox County, Sec. "H" of Columbus-Wooster Road, Clinton, Morris and Monroe Townships. Constructing bridges and culverts, grading roadway and paving with brick; length, 10,800 ft.; width, 14 ft.; estimated cost, $44,210.

Medina County, Sec. "L" of Medina-Norwalk Road. Constructing bridges and culverts, grading roadway and paving with concrete; length, 6821 ft.; width, 10 ft.; cost, $16,802.

Medina County, Sec. "M" of Ashland-Medina Road, Harrisville Township. Constructing bridges and culverts, grading roadway and paving with concrete; length, 11,040 ft.; width, 10 ft.; cost, $25,319.

Monroe County, Sec. "H" of Caldwell-Woodsfield Road, Summit Township. Constructing bridges and culverts, grading roadway for 6850 ft. and paving with brick 5280 ft.; length, 6850 ft.; width, 14 ft.; cost, $22,323.

Monroe County, Sec. "G" of Malaga-Alledonia Road, Sunsbury Township. Constructing bridges and culverts, grading roadway and paving with brick; length, 6154 ft.; width, 14 ft.; cost, $25,123.

Paulding County, Sec. "G" of Paulding-Van Wert Road, Paulding and Jackson Townships. Constructing bridges and culverts, grading roadway and paving with waterbound macadam; length, 10,646 ft.; width, 14 and 16 ft.; cost, $12,001. Alternative bids will also be received for constructing bridges and culverts, grading roadway and paving with concrete; estimated cost, $24,067.

Paulding County, Sec. "F" of Paulding-Woodburn Road, Paulding Township. Constructing bridges and culverts, grading roadway and paving with waterbound macadam; length, 10,354 ft.; width, 14 ft.; cost, $17,255.

Perry County, Ohio, Sec. "M" of Logan-New Lexington Road, Salt Lick Township. Constructing bridges and culverts, grading roadway and paving with brick; length, 8970 ft.; width, 16 ft.; cost, $46,428.

Portage County, on Sec. "N" of Akron-Youngstown Road, Palmyra Township. Constructing bridges and culverts, grading roadway and paving with concrete; length, 9142 ft.; width, 12 ft.; cost, $21,237.

Portage County, Sec. "M" of Ravenna-Parkman Road, Freedom Township. Con-

New York, N. Y.—In all 13 bids were opened Apr. 13 by Bd. Water Supply, Municipal Bldg., New York, for Contract 152, surfacing with vitr. brick blocks and macadam about 5 miles of highways and constructing about 8 miles of guard walls at the Ashokan Reservoir, in towns of Olive, Marbletown and Hurley, Ulster County, ranging from $189,150 to $392,000.

★Following are unit prices of the 5 lowest bids: (a) Winston & Co., Brown's Station, $189,150 (awarded contract); (b) Harris-Rose Constr. Cor., 319 Pearl St., New York, $200,550; (c) Nordone & Petrillo and Jas. Garofano & Son, Inc., Proctor Bldg., Mt. Vernon, $216,305; (d) Frawley-Kaufman Contr. Co., Inc., 51 Chambers St., New York, $221,110; (e) H. B. Sproul Constr. Co., Inc., Peekskill, $221,950.

	*(a)	(b)	(c)	(d)	(e)
27,000 lin. ft. excav. and grading (rolling, preparation and shallow excav.)	$0.10	$0.25	$0.15	$0.70	$0.30
3,000 cu. yd. excav. and grading (not included in Item 1)	.50	.60	.40	.20	.60
4,000 cu. yd. broken stone for walks, drains, etc.	1.50	2.50	2.00	1.80	2.50
2,000 cu. yd. broken stone for macadam surfacing	2.50	3.15	2.90	2.50	3.50
6,000 cu. yd. concrete masonry for pavt. foundations	3.00	3.10	3.50	3.65	3.50
3,000 cu. yd. concrete masonry for curbs, edgings, etc.	4.00	4.00	5.00	4.15	4.00
17,000 bbls. Portland cement	1.20	1.85	1.44	2.00	1.35
40,000 sq. yd. vitr. brick pavt.	1.60	2.11	2.05	1.95	1.90
500 lin. ft. vitr. pipe, 8 in. or smaller	.50	.20	.45	.25	.30
40,000 lin. ft. stone guard walls	1.40	.67	1.28	1.00	1.50
300 cu. yd. rubble masonry and paving in mortar	4.00	2.50	4.00	1.25	4.50
2,000 lbs. cast iron and steel	.05	.05	.05	.03	.05
5,000 lbs. copper	.40	.30	.41	.50	.30

★*Items marked thus give the names of parties awarded contracts.*

structing bridges and culverts, grading roadway and paving with concrete; length, 16,667 ft.; width, 12 ft.; cost, $39,232.

Putnam County, Sec. "H" of Van Wert-Ottawa Road, Monterey and Jackson Townships. Constructing bridges and culverts, grading roadway and paving with waterbound macadam; length, 10,411 ft.; width, 16 ft.; cost, about $14,449.

Richland County, Sec. "M" of Mansfield-Shelby Road, Jackson Township. Constructing bridges and culverts, grading roadway and paving with waterbound macadam; length, 8100 ft.; width, 12 ft.; cost, $11,691.

Richland County, Sec. "N" of Mansfield-Wooster Road, Madison and Mifflin Townships. Constructing bridges and culverts, grading roadway and paving with waterbound macadam; length, 15,560 ft.; width, 12 ft.; cost, $25,466.

Ross County, Sec. "K" of Chillicothe-McArthur Road, Scioto Township. Constructing bridges and culverts, grading roadway and paving with concrete; length, 8040 ft.; width, 16 ft.; cost, $17,305.

Ross County, Sec. "L" of Chillicothe-Lancaster Road, Green Township. Constructing bridges and culverts, grading roadway and paving with brick; length, 5280 ft.; width, 16 ft.; cost, $14,837. Alternative bids will also be received for constructing bridges and culverts, grading roadway and paving with concrete; cost, $13,800.

Ross County, Sec. "M," Columbus-Chillicothe Western Road, Union Township. Constructing bridges and culverts, grading roadway and paving with brick; length, 5280 ft.; width, 16 ft.; cost, $16,568.

Stark County, Sec. "G" of Akron-Canton Road, Plain Township. Constructing bridges and culverts, grading roadway and paving with brick; length, 8300 ft.; width, 16 ft.; cost, $30,836.

Summit County, Sec. "K" of Akron-Cuyahoga Falls Road, Portage Township. Constructing bridges and culverts, grading roadway and paving with brick. Length, 2487 ft., width, 20 ft.; cost, $13,231.

Trumbull County, Sec. "N" of Warren-Sharon Road, Vienna Township. Constructing bridges and culverts, grading roadway and paving with glutrin bound macadam (rolled slag foundation); length, 12,237 ft.; width, 14 ft.; cost, $22,855. Alternative bids also, using sandstone for foundation; cost, $20,796.

Trumbull County, Sec. "M" of Youngstown-Warren Road, Weathersville Township. Constructing bridges and culverts, grading roadway and paving with glutrin bound macadam (sandstone foundation); length, 9650 ft.; width, 14 ft.; cost, $15,259. Alternative bids to be received for constructing bridges and culverts, grading roadway, and paving with glutrin bound macadam (crusher run foundation); cost, $17,510.

Work by Bureau of Maintenance and Repair includes the following bids to be opened Apr. 30:

Huron County, Sec. "O," Oberlin-Norwalk Road, Norwalk Township. Constructing bridges and culverts, grading roadway and paving with concrete; length, 6750 ft.; width, 16 ft.; cost, $17,633.

Trumbull County, Sec. "A" of Youngstown-Conneaut Road, Kinsman Township. Grading and paving roadway with brick; length, 973 ft.; width, 16 ft.; cost, $3,701.

Plans and specifications are on file at the offices of the County Comrs.; also at the State Highway Dept., Columbus.

Plain City, O.—Bids desired until Apr. 29 by L. Z. McCampbell, Village Clk., for paving with vitr. brick or block or asphalt block with approved filler and on a gravel, crushed stone or concrete bed W. Main St. Kennedy & Kennedy, Engrs., Marysville.

Sandusky, O.—Bids desired until Apr. 26 by Hayes M. Adams, Co. Aud., for $51,000 Main Market Road bonds.

Toledo, O.—City Council sold about $150,000 bridge and paving and park bonds.

Bremen, Ind.—Bids desired by T. F. Knoblock, Town Clk., until May 7 for about 16 blocks of pavt.; part will be brick on concrete base, with concrete filler; balance undecided yet. Chas. E. Cole, Engr., Mishawaka.

Indiana.—Bids desired by County Commissioners for constructing roads as follows:

Until Apr. 28:

Shelbyville, gravel road in Washington Township, crushed stone road in Liberty Township and gravel road on line dividing Jackson, Hendricks and Washington Townships. F. W. Fagel, Co. Aud.

Until May 3:

Versailles, grading and macadamizing roads in various townships. J. F. Lochard, Co. Aud.

Goshen, a brick and gravel road in Elkhart Township. J. W. Brown, Co. Aud.

Kentland, a macadam road in Lake Township. S. R. Sizelove, Co. Aud.

Scottsburg, 3 gravel roads, one on Jennings-Johnson Township line and two in Jennings and Vienna Townships. Robt. Blunt, Co. Aud.

Jeffersonville, a bituminous macadam road in Jeffersonville Township. G. W. Stoner, Co. Aud.

Greencastle, a macadam road in Marion Township. C. L. Airhart, Co. Aud.

Brownstown, a stone and gravel road in Washington Township, and two concrete roads in Brownstown Township. Albert Leudtke, Co. Aud.

Until May 4:

Bedford, macadamized roads in Pleasant Run Township, 15,766 ft., and Marshall Township, 11,470 ft. E. W. Edwards, Co. Aud.

Decatur, a macadamized road in Jefferson Township. T. H. Baltzell, Co. Aud.

Kokomo, constructing sidewalks and paving roadway of Washington St. bridge; also constructing a gravel road in Liberty Township. E. B. Swift, Co. Aud.

Vincennes, 14,500 ft. gravel road in Washington Township. J. L. Muentzer, Co. Aud.

Boonville, rock roads in Greer and Boon Townships. G. H. Bass, Co. Aud.

Bloomington, four macadam roads. Geo. E. Kidd, Co. Aud.

Monticello, a crushed stone road in Honey Creek Township, gravel roads in Jackson, Princeton and West Point Townships. A. G. Fisher, Co. Aud.

Marion, grading, draining and paving roads in Fairmont and Jefferson Townships. E. H. Kimball, Co. Aud.

Ann Arbor, Mich.—Bids desired by Bd. of Pub. Wks. until May 5, for about 20,000 sq. yds. of paving; bids to be received on tar concrete, reinforced concrete, vitr. brick, asphaltic concrete and bitulithic. Manley Osgood, City Engr.

★**Battle Creek, Mich.**—Contract for paving 2 miles on Van Buren St. awarded to Federal Asphalt Co., Hamilton, O., at $24,000.

Jackson, Mich.—Bids desired until May 4 for repaving Main St. from Park Ave. to Jackson St., approximately 15,000 sq. yds.; also for approximately 3600 sq. yds. paving on Seymour St. Bids will be considered on creosoted block, asphaltic concrete, sheet asphalt and brick. A. U. D. Hall, City Engr.

Kalamazoo, Mich.—Bids desired until May 3 by C. L. Miller, City Clerk, for 2,000 sq. yds. asphaltic concrete top, also 613,000 paving blocks, advertised in Engineering Record.

Sault Ste. Marie, Mich.—Citizens of Chippewa County voted $150,000 bonds for constructing macadam road.

Ypsilanti, Mich.—Bids desired until Apr. 28 by Sumner Damon, City Clk., for paving portions of Washington and Cross Sts. and Huron Ave. with 2-course concrete pavement, in all 13 blocks.

Brocton, Ill.—All bids opened Apr. 12 by Comrs. of Highways, Embarrass Township, at office of Town Clerk, Brocton, for 5 combination rock and gravel roads have been rejected, and new bids will be received. Lowest bid was submitted by Chrisman Contr. Co., Chrisman, at $21,400. Carl J. Barr, of Paris, Co. Supt. of Highways.

Dixon, Ill.—Citizens Dixon Township voted $82,000 bonds for constructing roads.

★**Illinois**—Contracts awarded Apr. 7 by State Highway Comn., Springfield, for following State aid work, all cement to be furnished by State:

★Kendall County, Sect. A, 7300 ft. concrete, to Booth & Nicholson, of Gardner, at $11,189.

★Sangamon County, Sect. F, 1700 ft. brick, to Dick Egan, Springfield, $5,300.

Illinois.—Bids desired until May 5 by State Highway Comn., Springfield, for following State paving work:

Ford County (nearest P. O. Roberts)—Brick, Sect. A, 5,900 ft., cost $15,917.

Pike County (nearest P. O. Pittsfield)—Concrete, Sect. A, 7,800 ft., cost $12,241.

Shelby County (nearest P. O. Shelbyville)—Concrete, Sect. A, 4,800 ft., cost $7,142.

Kankakee County (nearest P. O. Exline)—Concrete, Sect. B, 1,200 ft., cost $2,049.

Bureau County (nearest P. O. Princeton)—Concrete, Sect. C, 4,000 ft., cost $8,228; also Sect. D, concrete, 4,200 ft., cost $7,362.

Peoria, Ill.—Bids desired until Apr. 26 by Bd. Local Improv. for resurfacing with sheet asphalt Moss Ave., about 18,360 sq. yds. Total cost, $25,607.

Delavan, Wis.—Bids reported desired until Apr. 30 by City Clk. for grading and paving various streets with reinforced concrete, vitr. brick or asphalt macadam, together with combined concrete curb and gutter.

Madison, Wis.—Several miles of concrete pavement and glutrin treated macadam and gravel will be constructed in this section this season.

Sheboygan, Wis.—Bids desired until Apr. 30 by Bd. Pub. Wks. (C. U. Boley, Chmn.) for paving with concrete and curbing and sidewalks on portions of S. 9, and N. 2d, Sts., Erie Ave., and an alley, in all about 30,700 sq. yds. concrete pavt. and 14,380 lin. ft. combined curb.

Des Moines, Ia.—Bids desired until Apr. 28 by City Council for repaving E. Grand Ave., from 20th to 30th Sts., with either No. 1 vitr. paving brick or sheet asphalt, about 30,647 sq. yds. Horace Susong, City Clk.

Iowa Falls, Ia.—Bids desired until Apr. 30 by E. L. Marriage, City Mgr., for approximately 13,000 sq. yds. concrete, asphaltic concrete or bitulithic pavt. and 7,500 curb and gutter, advertised in Engineering Record.

Manhattan Beach, Cal.—L. Price, City Clk., writes following are bids opened Apr. 7 for paving Manhattan Ave.: (a) Modern Constr. Co., W. & C. Bldg., Los Angeles; (b) E. Shellings & M. S. Cummings; (c) Fairchild, Gilmore, Wilton Co., 396 P. E. Bldg., Los Angeles.

	(a)	(b)	(c)
178,376 sq. ft. grading and paving (Topeka)	$0.19	$0.182	$0.21
6,759 lin. ft. cement curb, Class A	.35	.33	.36
65,923 sq. ft. cement sidewalk	.12	.12	.15
268 cu. yd. soil	2.00	1.65	2.00
6 monuments	5.00	3.75	8.00
260 lin. ft. protection bar	.25	.27	.40
28 light posts, including conduit and wiring	75.00	63.63	75.00
1 culvert, as per drawing No. 42	30.00	37.00	45.00
1 culvert, as per drawing No. 43	450.00	444.00	600.00
5,560 sq. ft. wearing surface only	.06	.06	.10

Waukon, Ia.—See "Bridges."

Cloquet, Minn.—About $65,000 bonds have been sold by County Comrs. for road improvements.

Duluth, Minn.—City Council has ordered that Kenilworth Ave. and Sussex Ave., be graded and graveled at an estimated cost of $11,265; Colorado St., graded and macadamized, cost $12,353; Exeter St., graded and paved with reinforced concrete, cost $15,930 and E. 6th St. and 16th Ave., graded and paved with asphalt at an estimated cost of $19,100.

Bids desired until Apr. 26 by Comr. Pub. Wks. for improvement of Woodland Ave.; cost $25,000, and W. 6th St., $23,724.

Bids reported desired until May 5 by O. Halden, Co. Aud., for approximately 58 miles highway construction; probable cost $200,000.

Granite Falls, Minn.—Bids reported desired until Apr. 27 by G. H. Wilson, Co. Aud., to furnish one or more elevating road graders and 12 ft. blade graders.

Minneapolis, Minn.—Bids reported desired until May 3 by County Comrs. for regrading and macadamizing part of Rd. No. 7, town of Orono, Village of Mound, and Rd. 43, town of Orono; grading part of Rd. 49, town of Dayton; grading and placing culverts on change of Rd. 64, Village of Edina.

Great Bend, Kan.—City has ordered plans and specifications for paving 9 blocks on Main St., bids to be received at an early date. H. A. Rowland, Eng., of McPherson.

Newton, Kan.—Bids desired 10 a.m. Apr. 27 for 33,000 sq. yd. of brick, asphalt concrete, tar concrete, bitulithic and rock asphalt pavement. Selection to be made at opening of bids. Address F. E. Devlin, City Engr.

McPherson, Kan.—Contract for paving city to Watts & Ammerman, of Salina, at $55,868.23. Other bidders: J. R. Ramsey & Co., Lawrence, $58,156; A. Jaicks & Co., Kansas City, Mo., $57,332; Kaw Paving Co., Topeka, $58,800; Standard Roofing Co., Tulsa, Okla., $59,766. H. A. Rowland, City Eng.

Bozeman, Mont.—City Council voted to pave and construct storm sewers in Dist. No. 85; cost $26,228.

Atherton, Tex.—Citizens of Atherton and Cattarina County voted $10,000 bonds for street improvements.

Ft. Worth, Tex.—Bids were opened Apr. 6 for paving Cannon and Travis Aves., about 14,000 sq. yds., as follows: Texas Bitulithic Co., Ft. Worth, bitulithic pavt., $2.08¾ per sq. yd.; Roach-Manigan Paving Co., Ft. Worth, Bermudez bituminous concrete $1.80, or bituminous macadam, $1.13; and General Constr. Co., Ft. Worth, Bermudez bituminous concrete, $1.70; Texas or Magnolia concrete, $1.58; or bituminous macadam, $1.10. F. J. Von Zuben, City Eng.

★**Houston, Tex.**—Contract for paving Main St. Boule. awarded by County Comrs. to Eureka Paving Co., Houston; 4 bids submitted, at from $142,228 to $150,915.

Taylor, Tex.—Citizens voted to issue $100,000 bonds for street pavements.

Victoria, Tex.—Citizens voted $30,000 bonds for street pavements.

Ashford, Wash.—See "Bridges."

★**Chehalis, Wash.**—Following are bids opened Apr. 10 for 7040 sq. yd. pavement on concrete: T. B. Bidwell, Portland, Ore., $9,274 (awarded contract); Albers & Son, Chehalis, $10,130; N. P. Willis, Hoquiam, $10,840; Miracle Concrete Paving Co., Kalispell, Mont., $10,880; Jarvis & Garvey, Seattle, $10,973. J. D. Neville, County Engr.

Ephrata, Wash.—Bids reported desired until May 3 by C. T. Sanders, Co. Aud., for constructing a permanent highway about 7 miles long; probable cost $80,000. F. H. Stradling, Co. Engr.

La Conner, Wash.—Bids reported desired by J. S. Church, Town Clk., until May 4 for improving Morris St. with 7-in. one course concrete pavement, 18 ft. in width; probable cost $10,000.

Mt. Vernon, Wash.—City Council voted to pave with concrete Division and Wall Sts.; cost about $18,000.

Bids reported desired until May 4 by County Comrs. (W. V. Alexander, Clk.) to construct John Grip Rd. Probable cost $10,000.

Seattle, Wash. — Following are unit prices of successful bidders on road work opened Mar. 29 by King Co. Comrs. (A. P. Denton, Co. Engr.)

★Auburn-Enumclaw Road, Bond Issue 9, awarded to Washington Paving Co., Tacoma, as follows. Engineer's estimate $54,000.

55.86 acres clearing	$125.00
18.78 acres grubbing	100.00
61,209 cu. yds. excav., common	.25
Excav., solid rock	1.25
Excav., loose rock	1.00
15,577 cu. yds. borrow, common	.55
Borrow, solid rock	1.50
Borrow, loose rock	1.00
621,326 cu. yds. overhaul	.00¾
2,500 ft. side surface	.25
20 cu. yds. riprap laid	1.50
44 cu. yds. riprap placed	2.50
Slope wall	3.50
Rubble masonry	7.00
56.64 cu. yds. concrete, Class 1	10.00
Concrete, Class 2	9.00
Pipe rail	1.50
C.i. spikes, etc	.09
Structural steel, per lb	.06
2,764 lbs. reinforcing bars	.05
Expanded metal	.40
Lumber, per M ft	30.00
Piles driven	.40
Piles cutoff	.08
1,000 sq. ft. cedar log bulk	.20
410 ft. cedar tie logs	.15
3-in. tile, per ft	.24
1,400 ft. 6-in	.70
8-in. cor. metal pipe	1.00
12-in. cor. metal pipe	1.40
18-in. cor. metal pipe	2.00
24-in. cor. metal pipe	2.50
489 ft. 8-in. vitr. tile pipe	.60
1,217 ft. 12-in	.90
113 ft. 18-in	1.75
135 ft. 24-in	2.50
30-in., per ft	6.00
1,217 ft. 12-in. cement pipe	.80
113 ft. 18-in	1.25
135 ft. 24-in	1.65
30-in., per ft	2.25
Water barrels, ea	5.00
Puncheon	4.00
Emb. rail, No. 1, per ft	.25
Emb. rail, No. 2, per ft	.20
1,340 ft. emb. rail, No. 3	.20
Crushed rock, per cu. yd	2.50
Screening gravel, per cu. yd	.05

★Renton-Issaquah Road, awarded to Henry Brice, of Seattle, as follows. (Engineer's estimate $88,411.)

56.44 acres clearing	$75.00
13.22 acres grubbing	75.00
95,971 cu. yds. excav., common	.23
6,387 cu. yds. excav., solid rock	1.00
13,170 cu yds. excav., loose	.55
16,594 cu. yds. borrow, common	.26
Borrow, solid rock, per cu. yd	1.10
Borrow, loose rock, per cu. yd	.75
525,005 cu. yds. overhaul	.01
Side surface, per cu. yd	.20
45 cu. yds. riprap laid	2.00
54 cu. yds. riprap placed	3.00
192 cu. yds. slope wall	4.00
Rubble masonry, per cu. yd	6.00
246 cu. yds. concrete, Class 1	12.00
Concrete, Class 2, per cu. yd	10.00
Pipe rail, per ft	1.00
C.-i. spikes, etc., per lb	.07
Structural steel, per lb	.07
136,871 lbs. reinforcing bars	.08
Expanded metal, per lb	.10
Lumber, per M ft	25.00
Piles driven, per ft	.20
Piles cutoff, per ft	.15
865 sq. ft. cedar log bulk	.20
750 ft. cedar tie logs	.30
900 ft. 6-in. tile	.35
8-in. tile, per ft	1.00
8-in. cor. metal pipe, per ft	1.30
54 ft. 12-in. cor. metal pipe	1.80
18-in. cor. metal pipe, per ft	2.35
24-in. cor. metal pipe, per ft	.35
170 ft. 8-in. vitr. tile pipe	.60
2,058 ft. 12-in	1.25
18-in.	1.90
104 ft. 24-in	3.00
30-in.	5.00
36-in.	.50
12-in. cement pipe, per ft	1.00
18-in. cement pipe, per ft	2.25
24-in. cement pipe, per ft	3.40
30-in. cement pipe, per ft	5.50
36-in. cement pipe, per ft	2.50
Water barrels, ea	.25
5,500 ft. emb. rail, No. 3	.25
Crushed rock, per cu. yd	2.50
1,790 cu. yds. screening gravel	.25

A. P. Denton, County Engr., has been directed to prepare plans for paving with concrete Greenwood Ave. Rd., with concrete Crawford and Conover Rds., and with asphalt surface on Pacific Highway from Riverton to Renton Junction; cost about $40,000.

Spokane, Wash.—City Council voted to grade, curb and construct concrete sidewalks on S. Fiske St., at cost $75,000.

★Contract has been awarded for paving Hamilton and Fiske Sts. with asphalt to Mitchell Bros. and Payne, at $52,255. F. K. McBroom, City Comr.

★Items marked thus give the names of parties awarded contracts.

Wenatchee, Wash.—Contract is about to be let by County Comrs. for constructing 2 miles Lake Shore-Lake Chelan Highway; cost about $15,000.

★**California.**—Contracts awarded Apr. 16 by State Highway Comn., Sacramento (Austin B. Fletcher, Engr.), for State highway work (bids opened Apr. 5). For unit prices see Engineering Record of Apr. 17.

★Yolo County (bet. Yolo By-Pass and the Sacramento River), Div. 3, Route 6, Sect. C, to Joe Lawrence of Broderick, $24,205.

★Tulare County (bet. Goshen and Traver), Div. 6, Route 4, Sect. E2, to W. A. Kettlewell & Sons, Sanger, at $29,123.

★Tulare County (bet. Traver and the Northerly Boundary), Div. 6, Route 4, Sect. E1, to W. A. Kettlewell & Sons, Sanger, at $34,761.

★Yuba County (bet. Southerly Boundary and Morrison's Crossing), Div. 3, Route 3, Sect. A, to E. E. Roddan & Son, Wheatland, $19,985.

★**Los Angeles, Cal.**—Contract for paving with asphalt Catalina St. awarded by city to Fairchild-Gilmore Wilton Co., 396 Pacific Electric Bldg., at $18,532.

★Contract for paving with asphalt Western Ave. awarded to California, Arizonia Constr. Co., 717 Brockman Bldg., at $62,671.

★Contract for paving 22d St. awarded by Bd. Pub. Wks. to California-Arizona Constr. Co., 717 Brockman Bldg., at $14,387.

Palo Alto, Cal.—J. T. Byxbee, Jr., City Engr., writes bids will be received about May 10 for repaving Cowper St. and Homer Ave., about 61,300 sq. yds., with concrete, bituminous wearing cushion, on 5-in. concrete foundation, and 17,574 lin. ft. concrete curb. Probable cost, $105,000.

Arizona.—

Greenlee County has voted and sold $150,000 road bonds to be expended by Supervisors at Clifton.

Yuma County is offering for sale $500,000 road bonds to be expended by Bd. of Supervisors at Yuma.

Apache County has voted $125,000 road bonds, sale in charge of F. W. Nelson, Co. Attorney, St. Johns.

STREET CLEANING AND GARBAGE DISPOSAL.

Items Arranged Geographically

Lockport, N. Y.—Committee has been appointed to procure a site for garbage incinerator, but have not reported as yet; will let contract as soon as site is selected. Wm. G. Spalding, City Clk.

Newport, Ky.—City Comrs. considering construction of garbage crematory, to cost $20,000.

Madison, Wis.—City contemplating purchase of an incinerator.

★**San Antonio, Tex.**—Contract reported to have been approved by Council with the De Carie Co. for erection of an incinerator plant, to cost $11,985.

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Items Arranged Geographically

★**Dredging—Providence, R. I.**—Contract awarded to P. Sanford Ross, Jersey City, N. J., for dredging in Providence Harbor, at $91,833 (bids opened Mar. 30).

Dock—Dunkirk, N. Y.—The U. S. War Dept. has approved plans for proposed new public dock, and contract will soon be let. W. H. Shelton, City Engr.

Dredging—Niagara Falls, N. Y.—Following are the bids for dredging a 14-ft. channel in Niagara River at Niagara Falls, opened Apr. 15 at Buffalo, by Captain L. V. Frazier, Corps Engrs., U. S. A.—(a) 210,000 cu. yds. excav., scow meas., per cu. yd.; (b) totals: H. S. Kerbaugh, Inc., Buffalo, (a) 21 cts., (b) $44,100; Great Lakes Dredge & Dock Co., Buffalo, (a) 19¾ cts., (b) $41,475; Duluth Marine Contracting Co., Duluth, Minn., (a) 19 cts., (b) $39,900; Arthur E. Breymann, Toledo, O., (a) 18½ cts., (b) $38,850 (recommended for award).

Drainage—Atlantic City, N. J.—City Comrs. have adopted ordinance providing for bond issue of $100,000 for underground drainage extension.

Drainage—Wilmington, N. C.—M. F. H. Gouverneur, Secy. New Hanover County Drainage Dist., writes that it is proposed to drain 1550 acres of land east of Wilmington, 1 mile, all open canals or ditches. Contract not yet let. Cost, $22,000. Engineer, J. L. Becton, of Wilmington.

★**Hydro Electric Plant—Great Falls, S. C.**—Contract reported awarded by the Southern Power Co., of Charlotte, N. C., to the Hardaway Contr. Co., of Columbus, Ga., for constructing a hydro-electric plant above Great Falls in connection with the Catawba Falls group of plants in southeast section of Chester City. The plant will generate 30,000 hp.

Dock and Railroad Bonds—Pensacola, Fla.—Bids desired by City Comrs. until May 4 for the purchase of $400,000 bonds, to be used for construction of Municipal dock and belt line railroad.

Drainage—Darrow, La.—Bids desired until May 4 by Bayou Conway Drainage Dist., Darrow, in care of B. J. Vega, Secy.-Treas., Donaldsonville, for excavating drainage canals in said district, approximating 1,000,000 cu. yds. Plans and specification may be obtained from C. S. McFarland, 101 Lafayette St., New Orleans.

★**Drainage—Jennings, La.**—Contracts reported awarded by Comrs. of Grand Marias Subdrainage Dist., for drainage of a portion of Grand Marias, about 800,000 sq. yds., to the Lake Arthur Dredging Co., the G. B. Zigler Co. and the Hudson-Nicholas Dredging Co.; total cost about $100,000.

★**Wharf Improvement—New Orleans, La.**—Contract reported awarded by the Bd. of Comrs., to Doullut & Co., for the Valence St. landing, at $194,600.

Ditch—Dyersburg, Tenn.—Bids desired until May 14 by Directors of Reeds Creek Drainage Dist., for construction of about 15.4 miles of ditches, requiring excavation of about 660,000 cu. yds. of earth. The ditches range from a 14-ft. base, ½ to 1 side slopes and 7.5-ft. average cut to a 35-ft. base, 1 to 1 side slopes and 9.6-ft. average cut. Bids for the bonds of the Dist. will be received at the same time and place. Work is suitable for floating dipper dredges. Engineers, Morgan Eng. Co., Memphis.

★**Steel Lock Gates—Nashville, Tenn.**—Contract awarded Apr. 12 for constructing steel gates for Lock B and C, Cumberland River, to Penn Bridge Co., Beaver Falls, Pa., at $23,540. Next 3 lowest bids: Louisville Bridge & Iron Co., 11th & Oldham Sts., Louisville, Ky., $24,290; Independent Bridge Co., Beaver Ave., Pittsburgh, Pa., $25,158; Milwaukee Bridge Co., 1400 34th St., Milwaukee, Wis., $25,494.

Drainage—Selmer, Tenn.—C. A. Morphis, of Selmer, J. W. Wood, of Wichie, and F. M. Patton, Engr., of Jackson, reported to have been appointed by the McNairy County Court as Commissioners for Big Owl Creek Drainage Dist. in southeastern section of county. Contract for system will be let about May 20, and the work includes construction of a canal 8 ft. wide at bottom and 18 ft. wide at top, 8 ft. deep; 181,500 cu. yd. of earth will be removed. Abernathy & Abernathy and H. P. Wood, of Selmer, are attorneys for petitioners.

Hull for Dredge—Louisville, Ky.—Bids desired until May 19 by Maj. J. C. Oakes, Corps Engrs., U. S. A., Louisville, for a steel hull for dredge Nolin River, advertised in Engineering Record.

Breakwater—Marblehead, O.—Bids desired until May 20 by Capt. E. P. Bertholf, Comdt. U. S. Coast Guard, Treas. Dept., Washington, D. C., for constructing a rubble mound breakwater at Marblehead Coast Guard Station, Marblehead, advertised in Engineering Record.

Ditch—Napoleon, O.—G. E. Rafferty, Co. Aud., writes that a hearing will be held Apr. 29 on engineer's report on the Jos. S. Warren joint county ditch; it will be 12 miles in length. Engineer, F. A. Daum, of Napoleon.

★**Drain—Coldwater, Mich.**—Contract reported awarded to Weage & Tyler, of Coldwater, for constructing drains in Allegan and Barry Counties, at about $33,700.

Ditch—Clinton, Ia.—F. G. Hansen, Co. Aud., writes it is proposed to construct drainage system at a cost of $57,000, but contract will not be let for several months.

★**Dredge—Duluth, Minn.**—Bids for a steel hull 4½-yd. dipper dredge were opened Mar. 26 by Maj. E. D. Peck, Corps Engrs., U. S. A., and the bid of Hartmann Greiling Co., Green Bay, Wis., has been recommended for acceptance, at about $104,823.

Flumes—Lewiston, Mont.—Bids desired until May 10 by Winnett Irrigation Co. (E. H. Holmboe, Secy.) for metal flumes.

Dike Improvement—Kansas City, Mo.—Bids desired as follows by Lieut. Col. Herbert Deakyne, Corps Engrs., U. S. A., Kansas City, Mo., for dike improvement, on May 20 and May 24. All 4 proposals advertised in Engineering Record.

Drainage—Blytheville, Ark.—It is proposed to establish Drainage Dist. No. 16 and the Keystone Drainage Dist.

Drainage—Pine Bluff, Ark.—Approximately 15,000 acres are included in a drainage district known as No. 5, the petition for which has been granted by Judge Philpot. The district lies 3 miles north of Wabbaseka and drains into Dist. No. 3. Surveys have been made by White & Humphreys.

Levee—Helena, Ark.—The Cotton Belt Levee Dist. (N. E. Offenheiser, Ch. Engr.) is securing right of way for a 40-ft. levee through the entire district. Contract will soon be awarded.

Stone for Jetty—Lone Tree, Wash.—Bids desired until Apr. 28 by Lieut.-Col. J. B. Cavanaugh, Corps Engrs., U. S. A., Seattle, to furnish and deliver stone for jetty construction at Lone Tree, Gray's Harbor, Wash.

Wharf—Tacoma, Wash.—It is reported that plans are being prepared for construction of a municipal wharf; cost about $105,000.

Drydock Repairs, Etc.—Portland, Ore.—Local press reports state that Port of Portland Comn. is about to let contract for repairing wings of five pontoons of the drydock at St. Johns; tanks are to be placed in both end pontoons, so the "aprons" can be handled more satisfactory, and planking is to be cemented and caulked instead of a double thickness being used on the wings as first proposed.

Irrigation—Ione, Cal.—It is proposed to organize a district under the "Wright Act" for the irrigation of 15,000 acres in Amador County in Jackson and Ione Valleys, and another district in Sacramento County, to irrigate 35,000 to 40,000 acres in vicinity of Galt. The supply of these two districts will be by means of a storage reservoir at Volcano, in Amador County. The purchase and condemnation of property in Volcano Basin and construction of a dam 220 ft. high, base 15 ft., crest about 600 ft., will impound 130,000 acre-ft. of water. The water shed of Volcano Basin proper is about 75 sq. miles, the run off from this and the flood waters of the Mokelumnne River for 4 months of each year will fill the reservoir. For further information address Jas. T. Whittlesey, 602 Claus Spreckles Bldg., San Francisco, Ch. Engr. of Dist. John V. Powers is attorney for the Dist.

Needle Valve Outlets—Phoenix, Ariz.—Bids desired May 12 by U. S. Reclamation Service, 605 Federal Bldg., Los Angeles, Cal., for furnishing needle valve outlets for Roosevelt reservoir, Salt Lake Project.

Drain Tunnel—Eureka, Utah.—L. A. Martin and associates are reported to be organizing a company, to be known as the Tintic Tunnel Co., to drive a drain tunnel from the Goshen Valley to south end of the Tintic Dist., utilizing the water that is developed in irrigating land on the slope near Elberta and Goshen.

Irrigation Work—Payson City, Utah.—Bids desired until May 19 by U. S. Reclamation Service, Provo., for construction involving about 30,000 cu. yds. canal excavation and 3,400 cu. yds. reinforced concrete. The work is located near Payson City on San Pedro, Los Angeles & Salt Lake R. R. and the Tintic Branch of the Denver & Rio Grande R. R.

Lock Machinery, etc.—Peterboro, Ont.—Bids desired until May 5 by J. W. Pugsley, Secy., Dept. Railways and Canals, Ottawa, to furnish and deliver operating machines, anchorage fittings, and pivots for locks and gains for emergency steel stop-log bridges for the Trent Canal; also furnishing and installing wagon and cylindrical valves for certain locks on the Trent Canal.

ELECTRIC RAILWAYS.

Items Arranged Geographically

★**New York, N. Y.**—Contract has been awarded by Public Service Comn. for the First Dist. for construction of Sect. No. 4 of Routes Nos. 4 and 36 to the Litchfield Constr. Co., 23 Flatbush Ave., Brooklyn, at $1,937,509 (bids opened Apr. 9). This section is a part of the Broadway subway in Manhattan, to be operated by the New York Municipal Railway Corp. (B. R. T.), and lies in 7th Ave. between 51st and 59th Sts. It will be a 4-track structure. For unit prices see Engineering Record of Apr. 17.

★**Brooklyn, N. Y.**—Contract for building first section of the elevated railroad on Jamaica Ave. through Richmond Hill, from Crescent Ave. to Myrtle Ave., a portion of the Dual Rapid Transit system, awarded by New York Municipal Ry. Corp. to Post & McCord, of New York, at $750,000.

The Chief Engineer of the Public Service Comn. for the First Dist., 154 Nassau St., New York, has been authorized to receive bids for reconstruction of station platform edges in 4th Avenue subway, Brooklyn, so as to provide for operation of new steel cars purchased by New York Municipal Ry. Corp. These cars are wider than the old subway cars, and a certain amount of reconstruction in platforms is necessary.

Bids were opened by Public Service Comn., 154 Nassau St., New York, Apr. 20, for construction of Sect. 2 of Route 12, Eastern Parkway subway in Brooklyn, to be operated by Interborough Rapid Transit Co., and in all 19 bids were received: Following are the 4 lowest bids: Inter-Continental Constr. Co., 26 Cortlandt St., $2,734,000; Newman & Carey, $2,812,000; Bayley-Hitkins, $2,823,000; Chas. Cooper, $2,854000. The Eastern Parkway subway is an extension of existing subway, and runs from its terminus at Atlantic and Flatbush Aves., Brooklyn, out Flatbush Ave. to Eastern Parkway and out Eastern Parkway to Buffalo Ave. as a 4-track line, with a 3-track elevated extension from that point out to E. 98th St. and Livonia Ave. to New Lots Ave., and 2-track subway branch down Nostrand Ave. to Flatbush Ave.

Canal Dover, O.—Dover, Millersburg & Western Ry. Co., incorporated to construct an interurban railroad between Canal Dover and Millersburg. Capital $10,000. T. F. Phillips, G. T. Pryor among incorporators.

Toledo, O.—G. T. Wiswell, Chicago, Ill., and associates, are considering plans to construct an electric railway to connect Toledo and Columbus.

Rockford, Ill.—Rockford & Southern Ry. Co. is to build an electric railway from Rockford to Rochelle; cost about $800,000. A. C. Lingelbach & Co., Chicago, will construct the railway. L. Leon de Tissandier, Rockford, Engr.

Muscatine, Ia.—Plans are being prepared for electric railway to be constructed from Muscatine to West Liberty via Iowa City. A. D. Bowen, Muscatine, and Wm. Musser said to be interested.

Waterloo, Ia.—The Waterloo, Cedar Rapids & Northern Ry. Co., will expend about $300,000 for equipment for power plant at Waterloo.

RAILROADS.

Items Arranged Geographically

New York, N. Y.—The Lehigh Valley R.R. Co. (E. B. Ashby, Ch. Engr., New York) will soon award contracts for improvements, to cost about $1,000,000.

Rossville, Ga.—The Central of Georgia Railroad Co. (C. K. Lawrence, Ch. Engr., Savannah) reported to be considering construction of an extension from Rossville to Alton Park.

Pensacola, Fla.—See "Hydraulic Construction and River Improvements."

McRoberts, Ky.—The Louisville & Nashville Railroad Co. (W. H. Courtney, Ch. Engr., Louisville), is reported to be making preparations to construct a 23-mile road from McRoberts, present terminus of the road, down Elkhorn Creek to Elkhorn City.

★**Sciotoville, O.**—Contracts for construction of extension of C. & O. Railroad into Ohio from Sciotoville to a point near Waverly reported awarded as follows: Rinehart & Dennis, Charlottesville, Va., 7 miles; Winston & Co., of Richmond and New York, 10 miles; Robt. Grace & Co., Pittsburgh, Pa., 6 miles; W. W. Boxley & Co., Roanoke, Va., 3 miles; entire distance is about 28 miles.

Youngstown, O.—City Council reported to be considering issue of $800,000 bonds for elimination of grade crossings.

Montana, Ark.—The Montana Railroad Co., reported incorporated with a capital of $7,000 to build a short line from Montana, Johnson County, to coal mines of Johnson-King Mining Co. Directors, E. H. Johnson, Lee King, L. H. James, and others.

Galveston, Tex.—Press reports state that the Santa Fe Ry. (F. Merritt, Ch. Engr., Galveston), will spend about $300,000 in improvements in Texas, including $198,000 or track improvements and about $60,000 for new depots at Beaumont, Goldthwaite and Santa Ana.

San Antonio, Tex.—The Missouri, Kansas & Texas Ry. Co. (W. A. Webb, Gen. Mgr., Dallas), reported to be considering laying heavier steel on the San Antonio and Greenville division; it is also proposed to spend about $1,500,000 for new rolling stock and for reballasting.

PUBLIC BUILDINGS AND SCHOOLS.

Items Arranged Geographically

Concord, N. H.—Senate has passed a bill appropriating $164,000 for New Hampshire College.

★**Greenfield, Mass.**—Contract for erecting U. S. Post Office reported awarded to Westchester Eng. Co., White Plains, N. Y., at about $62,000.

Lowell, Mass.—Fredk. W. Stickney and Harry Prescott Graves, of Lowell, have been commissioned by Municipal Council to prepare plans for reconstructing the upper part of the Memorial Building as a public hall.

★**Worcester, Mass.**—Contract for erecting alumni gymnasium at Worcester Polytechnic Inst. awarded to Central Bldg. Co., Worcester, at about $100,000. Hewitt & Brown, Minneapolis, Archts.

Bids desired until May 3 by Geo. C. Halcott, Supt. Bldgs., to erect an addition to the North High School. Estimated cost, $190,000. John T. Simpson, Archt., Newark, N. J.

Newport, R. I.—Following are three bids opened Apr. 10 by Bureau of Yards and Docks, Washington, for roofing, metal work, etc., for new building at Naval Torpedo Station, Newport: W. G. Cornell Co., Washington, D. C., $29,999; Newport Contr. & Eng. Co., Newport News, Va., $32,204; Darling Slade Constr. Co., Newport, R. I., $40,954.

★**Buffalo, N. Y.**—State Prison Comn., Albany, has approved the plans for the outside cell jail, and contracts awarded include masonry to C. H. Everitt, White Bldg., at $57,595, and steel cells to Van Dorn Iron Wks., Cleveland, O., at $40,627.

It is reported that bids will be asked about May 5 for the construction of the tuberculosis hospital. Address City Hospital Comn.

Reported bids for $600,000 West Farm Hospital bonds are to be received in May. Address Comptroller.

★*Items marked thus give the names of parties awarded contracts.*

White Plains, N. Y.—Plans for addition to the court house are to be prepared by Benj. W. Morris, 101 Park Ave., New York; cost $1,000,000.

Absecon, N. J.—Citizens voted in favor of a $50,000 bond issue for school.

Atlantic City, N. J.—Bd. School Estimates has approved $150,000 for constructing an addition to the Brighton Ave. School.

Glen Rock, N. J.—Bids desired until Apr. 28 by Bd. Educ. for erecting a school. J. Oscar Bunce, Archt., Ridgewood; John H. Van Blarcom, Dist. Clk.

★**Plainfield, N. J.**—Contract for erecting U. S. Post Office awarded to Chas. Gilpin, Philadelphia, Pa., at $84,536.

Homestead, Pa.—Bids desired until May 12 by John E. Luth, Town Clk. or Secy. Bd. Comrs. Mifflin Township, Homestead, R. F. D. No. 1, to erect a municipal building at Eugene Ave. and Main St., including heating system and electric wiring, plumbing and sewering. A. G. Wickerham, Archt., 517 McClure St.

★**Johnsonburg, Pa.**—Contract for erecting school awarded as follows: General contract to Hyde Murphy Co., Ridgway, at $44,543; plumbing, Larson Bros., Johnsonburg, at $2,850; heating, Columbus Htg. & Ventilating Co., $5,000.

Philadelphia, Pa.—Reported plans will be ready about May for the 2-story brick and stone 60 x 160 ft. 10-room school to be erected at Crescentville for the Philadelphia Bd. Educ.

★**Pittsburgh, Pa.**—Contract for erecting the buildings for the Bureau of Mines awarded to Geo. H. Willis & Co., New York, N. Y., at $287,540.

Plans for building for insane for Directors of the Poor of Allegheny County are to be prepared by McMasters & Crooks, Pittsburgh; also for 3 cottages; the cost to be $100,000.

Bd. Trus. of Carnegie Inst. of Technology intends erecting 2 dormitories costing $75,000.

Bids desired until May 21 by Capt. Harold C. Fiske, Corps Engrs., U. S. A., Pittsburgh, for building 2 lockkeeper's houses at Dam. No. 1, Monongahela River, advertised in Engineering Record.

Towanda, Pa.—Later official reports state bids will be opened May 3 by School Bd. (W. T. Matchett, Secy.), to erect a fireproof high school, including ventilating and heating, plumbing and gas piping and electric work. Pierce & Bickford, Archts., Lake St., Elmira, N. Y.

Towanda, Pa.—Bids reported desired until Apr. 22 by J. A. Wilt, Pres. Bd. Educ., to erect a 2-story and basement, 146 x 90 ft. high school. Probable cost, $90,000. Pierce & Bickford, Archts., 118-20 Lake St., Elmira, N. Y.

★**Warren, Pa.**—Later reports state that contract for erecting the Warren Memorial Library has been awarded to Henry Schenke Co., of Erie. Warren & Wetmore, of New York, N. Y., Archts.

Washington, D. C.—Lowest bid opened Apr. 15 by Comrs. D. C. for erecting a 16-room school, No. 175, at Warder St., submitted by Thos. H. Melton Co., of Washington, at $118,000. S. Ashford, Municipal Archt.

Ft. Defiance, Va.—Bids desired until May 3 at office of T. J. Collins & Son, Archts., Staunton, to erect a 3-story barracks building and a mess hall and kitchen building for Augusta Military Academy at Ft. Defiance.

★**Charlotte, N. C.**—Contract for erecting Mercy General Hospital at E. 5th St. and Monroe Rd. has been awarded to Rose & Beamen, of Goldsboro, at $36,600; heating and plumbing to T. C. Toomey & Co.

Elizabeth City, N. C.—Bids desired until May 3 by County Comrs. (J. G. Fearing, Chmn.), for repair and improvement of County Jail. Harvey Abrames, Archt., Arcade Bldg., Norfolk, Va.

Greenville, S. C.—All architects desiring to compete for plans for $60,000 court house can communicate with D. B. Traxler, Chmn. Court House Com.

Bids desired until May 10 by W. H. Williamon, Co. Superv., for $100,000 bonds, $60,000 to be used for erecting or repairing courthouse and $30,000 for erecting or repairing jail.

Augusta, Ga.—Citizens voted $40,000 school and $40,000 auditorium bonds.

Cedartown, Ga. — Bids desired until May 1 for $50,000 school bonds. J. C. Walker, City Clk.

Waynesboro, Ga.—G. Lloyd Preacher, of Augusta, is architect for the proposed school.

Eau Gallie, Fla.—Bids desired until May 14 at office of E. E. Macy, Supt. County Public Schools, Eau Gallie, to erect high school at Titus and grade school at Mims.

Lake Helen, Fla.—Bids desired until May 10 by County Bd. Pub. Instruction, DeLand (C. R. M. Sheppard, Secy.), for erecting a school at Lake Helen. Mark & Sheftall, Archts., Clark Bldg., Jacksonville.

Tampa, Fla.—Bids reported desired until May 10 by County School Bd. for erecting the Madison St. School, costing $40,000. Bonfoey & Elliott, Archts., Tampa.

Melville, La.—Bd. Aldermen has adopted the plans of H. A. Gray for the new jail.

★**Memphis, Tenn.**—Contract for erecting the Prescott School awarded to D. D. Thomas & Son at $63,897.

Akron, O.—Directors of Municipal Univ. have decided to erect a library costing $30,000. Julius Boenisch, at the Univ., is to prepare plans.

Brookville, O.—Bids desired until May 1 by Bd. Educ. (G. M. Grau, Slk.), for furnishing material and erecting a high school. F. J. Hughes & Co., Archts., U. B. Bldg. Annex, Dayton.

Canton, O.—The Bd. Educ. (W. C. Lane, Clk.) has decided to erect 4 new ward schools, at cost of $200,000.

The Bd. of Educ. will receive bids in the near future for a $400,000 high school, the contract for excavation of which has been awarded to the Downs Constr. Co., Canton, at $28,000.

Cincinnati, O.—Plans are to be prepared by Saml. Hannaford & Sons, Hulbert Blk., for a 2-story club house to be erected by the Park Dept. on Deer Creek commons.

Cleveland, O.—Bids desired until Apr. 28 by A. R. Callow, Comr. Purchases and Supplies, to erect a pavilion in Rockefeller Park. Bids desired on Masonry work, including steel and iron work, etc., carpentry, etc.; marble and tile work; roofing and sheet metal work; plumbing; heating; electric wiring.

Bids reported desired until May 10 by Clerk Bd. Educ. for construction and alteration work at Dunham, Sibley and St. Clair schools. Frank G. Hogan, Dir. Schools.

Columbus, O.—Bids desired until May 4 by Director Pub. Service (Paul B. Kemper, Clk.) to erect a 1-story and basement brick, concrete and timber recreation building in Glenwood Park. J. A. Jones, Archt., Dispatch Annex Bldg.

Plans reported prepared by Prof. J. N. Bradford, Univ. Archt., for 2 buildings to be erected at the Ohio State Univ., one a domestic science building costing $150,000 and the other a shop building costing $120,000.

Corning, O.—Bids desired until Apr. 26 by Bd. Educ. (Geo. C. Allen, Clk.) for erecting a school. Marriott, Allen & Hall, Archts., Columbus.

Leesburg, O.—Howard & Merriam, Columbus, preparing plans for $45,000 high school.

Marion, O.—Reported bids desired Apr. 26 by Bd. Educ. for $165,000 school bonds.

Mt Vernon, O.—Anderson & Tremaine, of Mt. Vernon, have been engaged by Bd. Educ. to prepare plans for the school to be erected in the west end of the city.

North Center, O.—North Township Bd. Educ. is reported considering erecting a high school costing $25,000.

Oxford, O.—Two hundred thousand dollars has been given to Miami Univ. with which to erect a dormitory as a memorial to Dr. Geo. Campbell Ogden.

Salem, O.—Plans prepared for high school to be erected here. Address Bd. Educ.

Toledo, O.—Bids desired until May 17 by Clerk Bd. Educ., to furnish material and erect the Walbridge School, Walbridge Ave. Edw. M. Gee, Archt., Bd. Educ.

Warren, O.—Bids reported desired until Apr. 28 by C. C. & A. L. Thayer, Archts., Mercantile Bldg., New Castle, Pa., to erect a 3-story and basement, 40 x 80 ft., addition to Warren General Hospital. Probable cost, $30,000.

Woodsfield, O.—Plans for $50,000 high school being prepared by Howard & Merriam, of Columbus.

Elkhart, Ind.—Bids reported desired until May 1 by Albert R. Beardsley, City Clk., to erect a 2-story and basement fireproof city hall. E. Hill Turnock, Archt., Elkhart.

Ft. Wayne, Ind.—Bids desired until May 3 by Leonard Stolte, Trus. Washington School Township, at office of Mahurin & Mahurin, Archts., Ft. Wayne, for erecting a school in Dist. No. 5, including plumbing, heating, etc.

Graysville, Ind.—Bids reported desired until May 4 by Trustees of Turman Township, at Sullivan (H. H. Arnett, Trus.) for erecting a grade and high school at Graysville.

★**Lafayette, Ind.**—Contract for erecting West Side high school awarded to A. E. Kemmer, Lafayette, at $27,890.

New Albany, Ind.—A school costing $40,000 is to be erected at Elkin Ave. and Silver St.

Detroit, Mich.—Reported bids about to be asked by Dept. Pub. Wks. for erecting municipal courts building, plans for which have been completed by Smith, Hinchman & Grylls, Detroit; cost $600,000.

Graylings, Mich.—Bids reported desired until Apr. 28 by Bd. Educ. for erecting a high school; also ventilating and heating same. Jens C. Petersen, Archt., State Bank Bldg., Traverse City.

Sandusky, Mich.—Citizens of the county voted $80,000 bonds for new court house. Address Co. Auditor, Sandusky.

★**Dixon, Ill.**—Contract for erecting county home on the county farm awarded to W. J. McAlpine, at $47,250.

Chicago, Ill.—See "Miscellaneous."

La Salle, Ill.—Bids desired until May 26 by Jas. A. Wetmore, Acting Superv. Archts., Washington, D. C., for construction, complete (including mechanical equipment, lighting fixtures and approaches), of the U. S. Post Office at La Salle.

Winnetka, Ill.—Bids reported desired until April 26 by Perkind, Fellows & Hamilton, Archts., 6 N. Clark St., Chicago, to erect a school, 1-story, 125.10 x 100 ft., irregular, for Bd. Educ., Winnetka.

Ft. Atkinson, Wis.—Bids reported desired until Apr. 30 by Paul C. Burchard, Secy. Bldg. Com., Library Bd., to erect a library building. Separate bids on heating, plumbing and electric work. Claude & Starck, Archts., 8 S. Carroll St., Madison.

Madison, Wis.—An armory costing $250,000 is to be erected on Camp Randall. T. G. Wrightson, Prof. of Military Science at Univ. of Wisconsin, may be able to give further information.

Ames, Ia.—Lowest bid opened for erecting city hall and fire station was submitted by J. E. Tusant & Co., of Des Moines, at about $32,000.

Council Bluffs, Ia.—Bids reported desired until May 4 by Bd. Dirs., Independent School Dist., to erect an addition to 8th St. School, 8th St. and Ave. F. F. E. Fox, Archt., 45 Baldwin Blk.

Magnolia, Ia.—Bids reported desired until Apr. 28 by J. H. Craddock, Archt., Continental Bank Bldg., Omaha, Neb., to erect a 2-story and basement, 61 x 82 ft., school for Bd. Educ. Probable cost, $27,000.

★**Scranton, Ia.**—Contract awarded by Bd. Educ. (D. J. Dunning, Secy.), Apr. 12 for erecting a 2-story and basement, 64 x 128 ft. grade and high school, to J. M. Evan Contr. Co., Mexico, Mo., at $30,990; plumbing and heating to Western Htg. & Plumbing Co., Omaha, Neb., at $4,774. Trunk & Gordon, Archts., Donnell Court Bldg., St. Joseph, Mo.

Vinton, Ia.—The County Home buildings were recently destroyed by fire; will be rebuilt at a cost of $30,000. Address County Auditor, Vinton.

Breckenridge, Minn.—City Clerk writes it is proposed to erect city hall and jail, to cost $25,000.

Columbia Heights, Minn.—Bids desired until May 1 by Bd. Educ. Dist. 65 (Mrs. Mary Covyeow, Clk.) to erect a school at 4th St. near 42d Ave. N. E.; also separate bids for installing ventilating, heating and plumbing. Kirby T. Snyder, Archt., Plymouth Bldg., Minneapolis.

Fertile, Minn.—Lowest bid opened recently for erecting the school was submitted by Frank Johnson & Co., Duluth, at $26,246.

Hibbing, Minn.—Reported bids desired by Co. Comrs. for erecting a court house to cost $100,000. Holstead & Sullivan, Archts., Duluth.

★**Lamberton, Minn.**—Contract awarded Apr. 5 by Bd. Educ., Dist. No. 31 (Albert H. Emerson, Clk.), for erecting school, including ventilation, heating and plumbing, to Madsen Bros., Plymouth Bldg., Minneapolis. Kirby T. Snyder, Archt., 643 Plymouth Bldg., Minneapolis.

Minneapolis, Minn.—Two lowest bids opened Apr. 13 by Bd. Educ. (H. N. Leighton, Chmn.), for erecting a grade school in Johnson School Dist.: Nord Co., Minneapolis, $21,901; Johnson Constr. Co., Minneapolis, $21,668. Stebbins & Haxby, Archts.; Rose & Harris, Engrs.

Pelican Rapids, Minn.—Bids desired until Apr. 29 by School Bd. (J. P. Wallace, Secy.) to erect a high school. C. Howard Parson, Archt., Minneapolis.

St. Paul, Minn.—Council has passed on first reading ordinance authorizing erection of a school in district bounded by Wheelock Parkway, Como Ave. and Dale St., and appropriating $55,000 for the same.

Wichita, Kan.—Bids desired until May 3 by Bd. Educ. (J. Leland, Clk.) to erect Wenster Grade School. Crowell & Van Metr, Archt., Murdock Bldg.

Omaha, Neb.—Plans will be ready about May 15 or June 1 for erecting a hospital at 25th and Douglas Aves., 4-story, 65x 105 ft., common and pressed brick. Jas. Allan, Archt., Brandels Theater Bldg., Omaha.

Page, Neb.—Bids reported desired until May 4 by Bd. Educ. for erecting a 2-story brick school. John C. Woodward, Archt., Council Bluffs, Ia.

Milbank, S. D.—The County Surveyor writes that contract was recently let to C. E. Bell, Archt., Security Bank Bldg., Minneapolis, Minn., to prepare plans for the proposed court house; it will be 3 stories, 65 x 110 ft., of Bedford limestone; alternate bids to be received, to use as much native granite as possible. Plans will be ready for bids early in June. Appropriation $75,000.

Sioux Falls, S. D.—Bids desired until May 17 by Bd. Educ. (W. B. Fuller, Clk.) to furnish material and erect the Lincoln Grammar School Annex. Patton, Holmes & Flinn, Archts., 8 S. Dearborn St., Chicago, Ill.

Billings, Mont.—Bids reported desired until May 6 by Dedrick & Piper, Archts., to erect a 2-story and basement, 40 x 85 ft., school for School Dist. No. 2. Probable cost $25,000.

Butte, Mont.—Plans being prepared for an addition to the high school, cost $100,000.

Havre, Mont. — Court house bonds amounting to $125,000 have been sold. Bids for construction, it is reported, will be asked about May 1. Address Co. Comrs.

Miles City, Mont.—Bids reported desired until May 11 by School Dist. No. 1 (J. B. Collins, Clk.) for $60,000 school bonds.

Chillicothe, Mo.—Bids desired until June 3 by Jas. A. Wetmore, Acting Superv. Archt., Washington, D. C., for construction, complete (including mechanical equipment and approaches), of the U. S. Post Office and Court House at Chillicothe.

Kansas City, Mo.—Bids desired until April 30 by Bd. Dirs. School Dist. of Kansas City, for an addition to Ashland School, 24th St. and Elmwood Ave. Chas. A. Smith, Archt., Finance Bldg.

Gatesville, Tex.—Reported bids desired May 3 by Bd. Trus., State Juvenile Training School (David R. Hall, Pres.), for remodeling and fireproofing a 3-story dormitory at the school. Roy E. Lane, Archt., Waco.

Mt. Vernor, Wash.—Stephen & Stephen, New York Blk., Seattle, are architects for the 3-story reinforced concrete and terra cotta high school, to cost $60,000. G. B. Grace, Clk. Bd.

Seattle, Wash.—Bids reported desired until May 7 by Port of Seattle Comn. (C. E. Remsberg, Secy.), Central Bldg., to erect a 4-story warehouse and wharf at foot of Marion St. Probable cost $50,000.

Portland, Ore.—Lowest bid opened for erecting the Kennedy School was from M. Clancy, at $26,432.

Ottawa, Ont.—The erection of a central fire hall contemplated at a cost of $100,000. J. Graham, Fire Chief.

Toronto, Ont.—Bids desired until Apr. 30 by W. C. Wilkinson, Secy.-Treas., Bd. Educ., to erect an administration building on College St.

Bids desired until Apr. 29 by H. F. McNaughten, Secy., Pub. Wks. Dept., for erection of entrance lodge, stable and garage, excepting, heating, lighting and plumbing; also landscape gardening and concrete walks required on grounds of new Government House, Rosedale, Toronto.

PRIVATE BUILDINGS.

Items Arranged Geographically

Boston, Mass.—Hoffman Co., Philadelphia, Pa., are architects for the steel, brick, concrete and terra cotta theatre to be erected for the Orpheum Theatre Co. to cost $500,000.

Plans being prepared by J. Clinton Warren, 294 Washington St., for a 10-story brick mercantile building to be erected on Channery St. for Geo. W. Harvey.

★Contract for erecting 7-story Fred. H. Seavey Seminary Settlement building awarded by Directors of the Morgan Memorial to Walter A. Wentworth Co., Exchange Pl.; cost about $100,000. Frank A. Bourne, Archt., 70 Kilby St.

★**Palmer, Mass.**—Flynt Bldg. Co., Palmer, secured the contract for erecting 2-story brick building, 70 x 87 ft., for A. W. Holbrook.

★**Springfield, Mass.**—Reported contract for erecting 4 story building for J. D. Cokkinias, 69 Patton St., awarded to Edw. Radding.

Worcester, Mass.—Barnard Press will erect a 4-story brick building on Pleasant St., to cost $40,000.

Valley Falls, R. I.—Plans being prepared by John F. O'Malley, Providence, for a 3-story brick stone and steel office and theater building, which Jos. E. Shea will erect.

Brooklyn, N. Y.—Plans filed for 4-story brick warehouse to be erected at Ft. Greene Pl. and Atlantic Ave., for Armour Co., Chicago, Ill.; cost $60,000. Gorman & Schwartz, Archts., 367 Fulton St.

★Contract for erecting 3-story tenement at Bond and Wyckoff Sts. for Mrs. C. Zabriskie awarded to W. L. Crowe Constr. Co., 103 Park Ave., New York; cost about $50,000. Beverly S. King, Archt., 103 Park Ave., New York.

★*Items marked thus give the names of parties awarded contracts.*

Dolgeville, N. Y.—Reported W. H. Faville, will erect a club and theater building costing $50,000.

Long Island City, L. I., N. Y.—Bank of Long Island intends erecting a 1-story banking building on the Queens Boro. Bridge Plaza, costing $50,000.

Plans prepared for a 9-story fireproof steel and concrete 430x70 ft. market, to be erected by Long Island R. R. (J. R. Savage, Ch. Engr., Jamaica), at Hunters Point Ave., 4th, Hayward and Olive Sts., and is to cost $600,000.

Edw. Hahn, Long Island City, has prepared plans for a theatre to be erected at Steinway and Jamaica Aves., for the Reliable Bldg. Co., to be 5 story brick and reinforced concrete and fireproof.

★**New York, N. Y.**—Contracts for concrete piles for foundations for following buildings have been awarded to Raymond Concrete Pile Co., 140 Cedar St., New York: Factory for Atlantic Can Co., Boston and Chester St., Baltimore, Md.; warehouse for Logan Gregg Hardware Co., Pittsburgh, Pa.; addition to Sharswood Public School, Philadelphia, Pa.; coal pockets for Morganthaler Bros., Philadelphia; warehouse and other buildings for Standard Oil Co., Cortland St., Chicago, Ill.; pattern storage warehouse for Westinghouse Electric & Mfg. Co., Cleveland, O.

Trus. of Astor Estate have been authorized to erect a public market on Bway., 94th to 95th Sts., to cost $200,000, including equipment.

★Contract awarded to John MacAdam & Co., 29 E. 34th St., for erecting a 2-story brick garage on Prospect Ave. for Prospect Garage Co.; cost $50,000. Benj. W. Levitan, Archt., 20 W. 31st St.

Plans being prepared by Schwartz & Gross, 347 5th Ave., for a 12-story granite, limestone and terra cotta fireproof store and loft building to be erected at 30th St. and Bway. for Moses Crystal, 37 E. 28th St.

Plans being prepared by Emery Roth, 405 Lexington Ave., for a 13-story brick and limestone apartment house to be erected at West End Ave. and 89th St. for 601 West End Ave. Co.

Plans being prepared by Harold L. Young and Steward Wagner, 1204 Bway., for 6-story brick, granite and terra cotta apartment house to be erected at Riverside Drive and 161st St. for Melvin Constr. Co., Inc., 189 Bway.; cost, including site, about $1,000,000.

Plans completed for following buildings: By Sommerfeld & Steckler, 31 Union Sq., for 5-story apartment house to be erected at Vermilyea and Academy Sts., cost $50,000; Saml. Katz, 1 Madison Ave., 6-story apartment house to be erected at Bway. and 218th St. for Robt. E. Simons, 30 E. 42d St., cost $45,000; Goldner & Goldberg, 891 E. 149th St., three 5-story apartment houses at Haven Ave. and 178th St. for Nevan Constr. Co., cost $195,000; Gronenberg & Leuchtag, 303 5th Ave., for 5-story apartment house to be erected at Vermilyea Ave. and 211th St. for Morris Solomon, 728 Driggs Ave., Brooklyn, cost $45,000; Sass & Springsteen, 32 Union Sq., for 5-story apart- Haven Constr. Co., cost $50,000; Geo. & Edw. Blum, 505 5th Ave., for 5-story apartment at Vermilyea Ave. and Academy St., for Bendheim Constr. Co., cost $75,000.

Plans have been filed for the following buildings: 12-story fireproof apartment house at 83d St. and West End Ave. for West End 83 Corporation, cost $135,000, Schwartz & Gross, Archts., 347 5th Ave.; two 6-story brick tenements at 510 W. 150th St. for Maple Constr. Co., cost $100,000, Gronenberg & Leuchtag, Archts., 303 5th Ave.; two 6-story apartment houses at 161st St. and Ft. Washington Ave. for Hudson View Constr. Co., cost $300,000, Young & Wagner, Archts., 1204 Bway.; 5-story brick residence at Park Ave. and 70th St. for Chas. M. Clark, cost $60,000, McKenzie, Voorhees & Gmelin, Archts., 1123 Bway.; 13-story fireproof hotel at 71st St. and Central Park West for Edw. W. Browning, cost $90,000, Robt. T. Lyons, Archt., 110 W. 40th St.; 12-story fireproof stores and office building at Madison Ave. and 40th St. for Lillia Babbitt Hyde, cost $285,000, F. E. Townsend, Archt., 103 Park Ave.; 5-story brick store and tenement at 215th St. and Bway. for Haven Constr. Co., cost $50,000, Sass & Springsteen, Archts., 32 Union Sq.; 5-story brick store and tenement at 215th St. and 10th Ave. for Haven Constr. Co., cost $50,000, Sass & Springsteen, 32 Union Sq., Archts.; five 5-story brick tenements at Fox St. and Avenue St. John for Bernhard Mayer, cost $200,000, Chas. B. Meyers, 1 Union Sq., Archt.; two 5-story brick tenements at Home St. and Longfellow Ave. for Durbar Realty Co., cost $110,000, Gronenberg & Leuchtag, Archts., 303 5th Ave.; 5-story brick tenement at University Ave. and 176th St. for Varsity Constr. Co., cost $45,000, And. J. Thomas, Archt., 2526 Webster Ave.; 6-story brick tenement at Washington Ave. and 169th St. for Roseff Realty Corporation, cost $40,000, Gronenberg & Leuchtag, Archts., 303 5th Ave.; two 5-story brick tenements at Hoe Ave. and Aldus St. for Turek Realty Co., cost $70,000, Saml. Katz, Archt., 1 Madison Ave.; 5-story brick tenement at Vyse Ave. and 177th St. for Jacob Ruppert Realty Co., cost $50,000; two 5-story brick tenements at Bryant and Aldus Aves. for Simona Realty Co., cost $70,000, Kreymborg Architectural Co., 1029 E. 163d St., Archts.

Niagara Falls, N. Y.—Epiphany Parish intends erecting a $30,000 edifice. C. R. Phelps, Archt., Gluck Bldg.

Woodside, L. I., N. Y.—Plans completed by Walter R. Blair, 381 5th Ave., New York, for a 1-story brick and steel tennis court building to be erected at Packard St. and Queens Boule, for Pastime Tennis Co., 165 Bway., New York; cost about $50,000.

★**Atlantic City, N. J.**—Contract for steel, about 275 tons, reported awarded to Eastern Steel Co., Pottsville, Pa., for work in connection with 7-story brick, stone and concrete addition to Hotel Strand. Bids on other parts of the work will be asked soon. Lloyd Titus, Archt.

Rutherford, N. J.—C. F. Hammond reported interested in theatre to be erected on Ames and Park Aves., and is to cost $50,000.

Dickson City, Pa.—Plans for St. Thomas Church, to cost $25,000, have been accepted by trustees.

Erie, Pa.—Loyal Order of Moose reported to be taking steps to erect a lodge building at 7th and French Sts.; cost $50,000.

Philadelphia, Pa.—Plans and specifications completed by Peuckert & Wunder, 310 Chestnut St., for 4-story and basement brick, limestone and terra cotta apartment house to be erected at 46th and Spruce Sts. for Harrison N. Diesel. Cost $40,000.

★**Pittsburgh, Pa.**—Contract for erecting warehouse at 17th and Butler Sts. for P. H. Butler Co., awarded to Geo. Hogg Co., Keystone Bldg., at about $75,000.

★Contract for excavating site for Frick Arcade building to be erected at 5th Ave. and Grant St. has been awarded to Booth & Flinn, of Pittsburgh, and for the structural steel to the American Bridge Co. F. J. Osterling, Archt.

First United Presbyterian Church, Union Ave. and Erie St., Northside, intends erecting a Community House costing $300,000. Rev. John Alvin Orr., Pastor.

Central Christian Church intends erecting a $35,000 church.

★**Primos, Pa.**—Contract for erecting 2-story reinforced concrete, brick and terra cotta laboratory for Prisom Chemical Co. awarded by Peuckert & Wunder, Archts. and Engrs., Philadelphia, to Philip Haibach Contr. Co., Philadelphia. Cost about $35,000.

Wilkes-Barre, Pa.—Bids reported desired until Apr. 30 by Fulter & Butler, Archts, Uniontown, to erect a 1 and 2-story, 160 x 97 ft., church, parsonage and parish house.

Washington, D. C.—Reported bids about to be asked for erecting a 7-story brick, terra cotta and steel apartment house for Jas. O'Donnell, 9th and F Sts., to cost $250,000. B. Stanley Simmons, Archt., 1340 New York Ave., N. W.

Matewan, W. Va.—Reported plans prepared by Pedigo & Garry, Bluefield, for a hotel which R. W. Buskirk of Matewan intends erecting in town of Buskirk, Ky., to be 3-story brick fireproof and costing $150,000.

Charleston, S. C.—Plans to be prepared by Louis Asbury for a church for the Methodists, to cost $25,000.

Monroe, La.—The Bldg. Com. of the Masonic Lodge has been authorized to take steps to erect a $30,000 lodge building.

Jackson, Miss.—John Livelar, of Canton, will erect on West Capitol St. a 2-story brick building costing $40,000.

Clarksville, Tenn.—Reported plans being prepared by Jos. W. Holman, Nashville, for a theatre which the Crescent Amusement Co. of Nashville intends erecting here, at a cost of $32,000.

Springfield, Tenn.—Methodists propose erecting a $25,000 edifice.

Louisville, Ky.—Plans for Christian Science Church are to be prepared by Brinton B. Davis, Louisville; cost $100,000. J. F. C. Hegewald, Chmn. Bldg. Com.

Lexington, Ky.—Richards, McCarty & Buford, Columbus, O., have been engage to prepare plans for the Maxwell St. Presbyterian Church and which is to cost $25,000.

Tabernacle Baptist Church will erect a $25,000 church. Rev. W. G. Mahaffey, Pastor.

★Contract reported awarded by Chesapeake & Ohio R. R. for erecting roundhouse, railroad repair shops, and other auxiliary buildings here to Combs Lumber Co. Cost approximately $100,000.

★**Cincinnati, O.**—Contract for erecting colored branch building of the Y. M. C. A. awarded to Ferro Concrete Constr. Co., Cincinnati.

Columbus, O.—Plans being prepared by Reibel & Sons, Columbus, for a dairy building to be erected at 4th St. and 4th Ave. by S. T. Budd Dairy Co., to cost $30,000.

★**Massillon, O.**—Reported contract for erecting 2-story concrete brick and steel Lincoln Theatre on E. Main St. awarded to A. F. Wendling Co., of Massillon.

Zanesville, O.—The Odd Fellows' temple on Main St. is to be remodeled at a cost of $25,000.

Indianapolis, Ind.—Preliminary plans being prepared by Rubush & Hunter, Indianapolis, for a 10-story addition which it is proposed erecting to the Columbia Club.

★Contract for erecting the Masonic Temple for Oriental Lodge at Central Ave. and 22d St. awarded to Henry W. Klausmann; cost $60,000. Rubush & Hunter of Indianapolis, Archts.

Lafayette, Ind.—Leopold Dryfus reported to be planning erecting a theatre costing $90,000 on the site of the old Dryfus Theatre, which was destroyed by fire.

★**Kenosha, Wis.** — Contract awarded Apr. 5 by Bldg. Com. Kenosha Aerie No. 1055, F. O. E. (Leo H. Flasch, Chmn.), for erecting a club house, to Klemm & Klemm. Jos. Lindl, Archt., Kenosha.

Milwaukee, Wis.—Plans reported prepared by Brust & Phillip, Milwaukee, for a moving picture theatre which the Badger State Amusement Co. intends erecting on Grand Ave., at a cost of $80,000.

Rice Lake, Wis.—John P. Walsh, of Rice Lake, intends erecting at Main and Marshall Sts. a 3-story brick hotel costing $60,000.

Cedar Rapids, Ia.—Western Grocer Co. of Marshalltown reported to be taking steps to erect a 5-story brick office and warehouse, costing $75,000.

C. L. Miller Estate having plans prepared for store and office building to be erected at 1st Ave. and 1st St. W. An apartment house will be in the rear. Estimated cost $65,000. Address the Howard-Holt Co., Cedar Rapids.

Mason City, Ia.—Lutherans propose erecting a $25,000 building.

Minneapolis, Minn.—Bids reported desired until Apr. 27 by C. E. Bell, Archt., Security Bank Bldg., to erect a 12-story and basement, 157 x 88 ft., hotel and store building for Union City Mission.

St. Cloud, Minn.—Plans being prepared for a $40,000 building, which the Sauk Rapids Granite Co. intends erecting.

Topeka, Kan.—Reported Palace Clothing Co. intends rebuilding building destroyed by fire.

Billings, Mont.—Plans for $40,000 Presbyterian Church have been accepted.

St. Louis, Mo.—The Lafayette South Side Bank intends erecting at Bway. and Lafayette Ave. a fireproof, reinforced concrete, brick and terra cotta building, according to plans by Widmann & Walsh, 105 N. 7th St. Fred C. Hahn, Cashier.

★**Austin, Tex.** — Contract awarded to Reinhart & Donovan, of Oklahoma City, for erecting a 9-story addition to the Littlefield Bldg., at $96,072; heating and plumbing awarded to John L. Martin.

Ft. Worth, Tex.—Plans to be prepared by Van Slyke & Woodruff, 606 American Natl. Bank Bldg. for a 7-story hotel to be erected on Main and 10th Sts. by J. A. Ingram, of Ft. Worth.

Galveston, Tex.—Reported Brown & Buillemin, Galveston, submitted the lowest bid for erecting the 3-story brick store and hotel building, at 21st and Church Sts., for J. C. League, at $30,620. A. J. Bellis, Archt., Galveston.

★**Seattle, Wash.**—Contract awarded to John McGrath, Northern Bank Bldg., for erecting a 3-story reinforced concrete apartment house for Brown & Cassells at Aloah St. and Queen Anne Ave., to cost $60,000.

Seattle, Wash.—A garage and machine shop costing $125,000 are to be erected at Bway. and Denny Way by Ferris Auto Repair Co., 101 Bway. Ave. N.

San Francisco, Cal.—Plans completed by J. R. Miller, Lick Bldg., for a 6-story hotel to be erected on Eddy and Mason Sts., at a cost of $100,000, for the Prior Estate.

NEW INDUSTRIAL PLANTS.

Items Arranged Geographically
See also "Private Buildings."

★**Holyoke, Mass.**—Contract awarded to Casper Ranger Constr. Co., Holyoke, for erecting 9-story stock house for Lyman Mills.

Malden, Mass.—The Malden Knitting Mills will erect a 4-story 40x150 ft. brick mill.

Millbury, Mass.—The Metropolitan Ice Co., Boston, will erect an ice house 200x600 ft.

★**New Bedford, Mass.**—Contract awarded to J. W. Bishop Co., of Worcester, for erecting additions to one of the main mills and to the storehouse of the Kilburn plant, cost to be about $100,000.

Thomaston, Conn.—The Seth Thomas Clock Co. will erect a new plant, consisting of a 4-story 340x60 ft. building with 2 wings each 200x60 ft.; also a 1-story brick building 120x220 ft. and a power building; also an office building 50x50 ft., all of reinforced concrete construction.

★Contract for erecting above plant has been awarded to Turner Constr. Co., 11 Bway., New York, N. Y. At present 2 buildings will be built—one 4 stories, 240 x 60 ft., the other 4 stories, office building, 52 x 52 ft. Lockwood, Greene & Co., Engrs., Boston, Mass.

Brooklyn, N. Y.—Reported bids desired by Koelle-Spaeth Co., Archts., Philadelphia, Pa., for alterations and additions to 1-story brick, steel, 36 x 60 ft., power house for the J. F. Prommer Brewing Co.

Reported bids desired by Francisco & Jacobus, Archts. and Engrs., 200 5th Ave., New York, N. Y., for the 4-story brick and reinforced concrete factory and power house to be erected at 56th St. and 2d Ave. for the American Machine & Foundry Co., 346 Carroll St.

Buffalo, N. Y.—Plans completed by Buffalo Forge Co., Bway. and Mortimer St., for a 5-story addition, 125 x 200 ft.

★Contract for second building for the plant of the Curtis Aeroplane Co., on Churchill St. and N. Y. Central R.R., awarded to Ferguson Steel & Iron Co. Building steel frame with steel truss roof.

An addition costing $200,000 is to be added to the plant of the Schoellkopf Hartford & Hanna Co. on Abbott Road and Lake Shore R.R. for the manufacture of aniline dyes. Fredk. C. Bonnett, Mgr.

Long Island City, N. Y.—Plans filed for 2-story concrete factory to be erected at Anabel St. and Gosman Ave. for Courtenay Development Co., 1170 Bway., New York. Cost $100,000. Tinnis & Chapman, Archts., 315 5th Ave., New York.

★**Newark, N. Y.**—Contract awarded to F. H. Johnson Constr. Co. for erecting a 2-story and basement factory, 60 x 100 ft., with wing 30 x 30 ft., for C. H. Stewart Co. for manufacture of perfumes and extracts. Cost $25,000.

★**Syracuse, N. Y.**—Contract awarded to Howes Constr. Co., New York, N. Y., for erecting additional stories on packing and hardening shops, brick, steel and concrete, for the New Process Gear Co. Lackawanna Bridge Co. has contract for steel work. Day & Zimmerman, Archts., Philadelphia.

Plans being prepared by Day & Zimmerman, Philadelphia, Pa., for 4-story brick, steel and reinforced concrete factory to be erected for above company.

Jersey City, N. J.—Plans prepared by Wm. A. Bogart, 298 Jackson Ave., for a 3-story factory to be erected at Brooks and Center Sts. for Campanello & Favaro Co., 424 2d St.; cost about $40,000.

Princeton, N. J. — The Rockefeller Foundation intends erecting a plant here for the study of animal diseases, the ground, buildings and equipment to cost $1,000,000.

Philadelphia, Pa.—Permit issued to A. L. Carhart, 321 Hale Bldg., for erecting concrete and steel, 75 x 85 ft., building on Tucker and Bermuda Sts., for Barret Mfg. Co.; cost $45,000.

★**Pittsburgh, Pa.**—Contract for erecting 2-story and basement factory and storage building for Vitro Mfg. Co. awarded to Walker & Curley, Bessemer Bldg., at about $25,000.

★**Asheville, N. C.**—Contract for erecting 2-story 169 x 104 ft. stand mill construction building and 1-story 100 x 100 ft. reinforced concrete warehouse for French Broad Mfg. Co. awarded to T. C. Thompson & Bros., Birmingham, Ala. Lockwood, Greene & Co., Boston, Mass., Engrs.

Knoxville, Tenn.—An addition costing $75,000 is to be erected at the plant of the American Zinc. Co. of Tennessee.

Youngstown, O.—Joseph Bros., of Cincinnati, will erect a plant on Cedar St. and Baltimore & Ohio R.R. for the manufacture of steel fabricating.

Detroit, Mich.—Kelsey Wheel Co. will erect a factory 313 x 90 ft. on Hammond Ave., to cost $50,000.

Argentine, Kan.—John S. Metcalf Co., 108 S. La Salle St., has completed plans and specifications for a 2,000,000-bushel storage addition to the Atchison, Topeka & Santa Fé Ry.'s Co. elevator at Argentine, to have a total capacity of 4,500,000 bushels in concrete storage, with an additional capacity of 300,000 bushels in the working house. The additional storage will also be equipped with independent turning over legs and the belts and spouting will be arranged to give great flexibility to the storage plant.

MISCELLANEOUS.

Items Arranged Geographically
See also "Hydraulic Construction and River Improvements."

Steps, Walls, Etc.—Boston, Mass.—Bids desired until Apr. 26 by L. K. Rourke, Comr. Pub. Wks., Boston, for artificial stone walks, steps and walls in Wellington Hill footway, from Wellington Hill St. to Walk Hill St., Dorchester.

★**Swimming Pool—Baltimore, Md.**—Contract for constructing concrete swimming pool at Clifton Park reported awarded by Bd. of Awards, to Henry A. Brannan, at $25,900.

★*Items marked thus give the names of parties awarded contracts.*

Grading—Washington, D. C.—Bids desired until Apr. 28 at office of Secy. Comrs., D. C., for grading south approach of Anacostia Bridge.

Railway and Switches, Jacksonville, Fla.—Lowest bids for construction of the railway and switches for the municipal terminals, opened by Capt. Bruce, Engr., Bd. of Port Comrs., reported submitted by A. J. Mills, at $9,116. Work includes grading 23,000 cu. yds. of earth, lay 5½ miles of track and install 32 turnouts.

Furnishing Willows—New Orleans, La.—Bids desired until May 10 by Maj. Edw. H. Schulz, Corps Engrs., U. S. A., New Orleans, La. for furnishing about 20,000 cords willows at South and Southwest Passes, Mississippi River.

Steel Doors, etc., for Warehouse—New Orleans, La.—Bids desired until Apr. 28 by Bd. Port Comrs. (Ernest W. Loeb, Pres.) for fire doors and steel rolling doors, etc., for warehouse—under construction on east bank of Mississippi River near Valence St., advertised in Engineering Record. Ford, Bacon & Davis, Engrs., 921 Canal St.

★Recreation Building—Chicago, Ill.—Contract has been awarded by Harbor and Subway Comn. (W. O. Johnson, Secy.), for recreation building and shelter on Pier 2, Harbor Dist. No. 1, to Paschon Bros., at $415,000 (bids opened Apr. 12).

Concrete Tunnel—Everett, Wash.—It is reported that the Great Northern Ry. Co. (W. R. Smith, Div. Supt., Everett), will repair concrete tunnel under city streets, at a cost of about $90,000.

Tunnel—Wallace, Idaho.—The Chicago, Milwaukee & St. Paul Ry. Co. (C. F. Loweth, Ch. Engr., Chicago, Ill.) reported to be considering concreting 1¼ mile tunnel through the Montana-Idaho divide, near here; also reported track will be resurfaced and heavier rails laid.

Landscape Gardening, etc.—Toronto, Ont.—See "Public Buildings."

Steel Plates, Etc.—Panama.—Bids desired until May 1 by Maj. F. C. Boggs, Genl. Purchasing Officer, Panama Canal, Washington, D. C., for Cir. 917, steel plates, angles, channels, I-beams, soft steel bars, steel wire, brass wire, bolts, etc.

Castings, Etc.—Panama.—Bids desired until May 5 by Maj. F. C. Boggs, Corps Engrs., U. S. A., Genl. Purchasing Officer Panama Canal, Washington, D. C., for Cir. 918—Steel and iron castings, staybolt iron, bronze bars, bronze wire netting, brass tubing, etc.

Proposals

For Proposals Advertised see Pages 41(a), 41(b) and 42.

WATERWORKS.

Bids Close.		See Eng. Record.
Apr. 26.	Pipe, Boston, Mass.	Apr. 24
Apr. 27.	System, North Gates, N. Y. Adv. Apr. 17.	Apr. 17
Apr. 27.	Water Wks., Schoolcraft, Mich.	Apr. 17
Apr. 28.	Hydrants, Columbus, O.	Apr. 24
Apr. 29.	Mule Drive at Pump Sta., Philadelphia, Pa. Adv. Apr. 17, 24.	Apr. 17
Apr. 29.	Extension to System, Glencoe, Minn	Apr. 24
Apr. 29.	Meters, Pittsburgh, Pa.	Apr. 24
Apr. 29.	Pump, Chicago, Ill.	Apr. 24
Apr. 30.	Filter Unit, Reading, Pa. Adv. Apr. 17.	Apr. 17
Apr. 30.	Pipe, etc., Cincinnati, O.	Apr. 24
Apr. 30.	System, Ewing, Neb.	Apr. 24
Apr. 30.	Pipe, Cleveland, O.	Apr. 24
May 1.	Improvements, Laurel, Md. Adv. Apr. 10, 17.	Apr. 10
May 1.	System, for Cemetery, Crow Agency, Mont.	Apr. 10
May 3.	System, Morning Sun, Ia.	Apr. 24
May 4.	Pipe. Washington, D. C.	Apr. 17
May 4.	System, Riverside, Wash.	Apr. 24
May 5.	Centrifugal Pump, Kansas City, Mo. Adv. Mar. 20 to Apr. 24.	Mar. 20
May 5.	Mains, New Ulm, Minn.	Apr. 24
May 5.	Sulphate of Iron, Baltimore, Md. Adv. Apr. 24.	Apr. 24
May 6.	Reservoir, Gilbertsville, N. Y. Adv. Apr. 24.	Apr. 24
May 6.	C.-I. Pipe, Montrose, Colo.	Apr. 24
May 7.	Air Compressors, Lisbon, O. Adv. Apr. 24.	Apr. 24
May 7.	Pump, Stronghurst, Ill.	Apr. 24
May 8.	Mains, Cottonwood, Minn.	Apr. 24
May 12.	Pump. Unit, Ottawa, Ont.	Apr. 24
May 14.	System, Walterboro, S. C.	Apr. 24
May 15.	Pumping Station, Binghamton, N. Y. Adv. Apr. 3 to 17.	Apr. 3
May 15.	System at Naval Radio Sta., San Diego, Cal.	Apr. 17

SEWERAGE AND SEWAGE DISPOSAL.

Bids Close.		See Eng. Record.
Apr. 27.	Macon, Ga.	Apr. 10
Apr. 27.	Toronto, Ont.	Apr. 24
Apr. 27.	Hamilton, Ont.	Apr. 24
Apr. 27.	Lincoln, Neb.	Apr. 24
Apr. 28.	Clinton, S. C.	Apr. 3
Apr. 28.	Brooklyn, N. Y.	Apr. 24
Apr. 28.	Milwaukee, Wis.	Apr. 24
Apr. 29.	Philadelphia, Pa. Adv. Apr. 17, 24.	Apr. 17
Apr. 29.	Pittsburgh, Pa.	Apr. 24
Apr. 30.	Billings, Mont.	Apr. 10
Apr. 30.	Reading, Pa. Adv. Apr. 17.	Apr. 17
Apr. 30.	Great Neck Station, N. Y. Adv. Apr. 17, 24.	Apr. 17
Apr. 30.	Yorkville, N. Y.	Apr. 17
Apr. 30.	Monmouth Beach, N. J.	Apr. 24
Apr. 30.	Oswego, N. Y. Adv. Apr. 24.	Apr. 24
May 1.	Laurel, Md. Adv. Apr. 10, 17.	Apr. 10
May 3.	Indiana, Pa.	Apr. 17
May 3.	Jewell Junction, Ia.	Apr. 17
May 3.	Tripoli, Ia.	Apr. 24
May 3.	Ames, Ia.	Apr. 24
May 3.	Cincinnati, O.	Apr. 24
May 4.	Green Bay, Wis.	Apr. 24
May 5.	New Ulm, Minn.	Apr. 24
May 7.	American Falls, Idaho	Apr. 17
May 7.	Toledo, O.	Apr. 24
May 10.	Houston Heights, Tex.	Apr. 24
May 10.	Bridgeport, Conn. Adv. Apr. 24.	Apr. 24
May 11.	Newark, N. J.	Apr. 24
May 14.	Walterboro, S. C.	Apr. 24
May 14.	Huntington, N. Y. Adv. Apr. 24.	Apr. 24
May 15.	San Diego, Cal.	Apr. 17
May 25.	Wilkesbarre, Pa. Adv. Apr. 17.	Apr. 17

BRIDGES.

Bids Close.		See Eng. Record.
Apr. 27.	Leitchfield, Ky.	Mar. 27
Apr. 27.	Moorhead, Minn.	Apr. 17
Apr. 27.	Gettysburg, Pa.	Apr. 17
Apr. 28.	Akron, O.	Apr. 17
Apr. 29.	Philadelphia, Pa. Adv. Apr. 17, 24.	Apr. 17
Apr. 29.	Bemidji, Minn.	Apr. 17
Apr. 29.	Austin, Minn.	Apr. 17
Apr. 30.	Fremont, O.	Apr. 17
Apr. 30.	Toledo, O.	Apr. 17
Apr. 30.	Illinois	Apr. 24
May 1.	Columbus, O.	Apr. 10
May 1.	Tacoma, Wash.	Apr. 17
May 3.	Media, Pa. Adv. Apr. 17.	Apr. 17
May 3.	Hamlin, W. Va.	Apr. 17
May 3.	Cobleskill, N. Y. Adv. Apr. 17, 24.	Apr. 17
May 3.	Natchitoches, La.	Apr. 17
May 3.	Cumberland, Md.	Apr. 24
May 3.	Portland, Ore.	Apr. 24
May 3.	Marcus Hook, Pa.	Apr. 24
May 3.	Lancaster, N. Y.	Apr. 24
May 3.	Indiana	Apr. 24
May 4.	Sea Isle City, N. J. Adv. Apr. 10 to 24.	Apr. 10
May 4.	Northampton, Mass.	Apr. 17
May 4.	Indiana	Apr. 24
May 4.	Waukon, Ia.	Apr. 24
May 4.	Tulsa, Okla. Adv. Apr. 24.	Apr. 24
May 4.	Ashford, Wash.	Apr. 24
May 4.	Winamac, Ind.	Apr. 24
May 5.	Canton, N. Y. Adv. Apr. 17, 24.	Apr. 17
May 5.	Illinois	Apr. 24
May 5.	Ft. Dodge, Ia.	Apr. 24
May 5.	Dayton, Ind.	Apr. 24
May 5.	Converse, Ind.	Apr. 24
May 5.	Cleveland, O.	Apr. 24
May 7.	Dayton, O.	Apr. 17
May 8.	Tacoma, Wash.	Apr. 24
May 10.	Jasper, Ala.	Apr. 17
May 10.	Struthers, O.	Apr. 24
May 11.	Forest City, Ia. Adv. Apr. 24.	Apr. 24
May 11.	Washington, Pa.	Apr. 24
May 14.	Indiana	Apr. 24

PAVING AND ROADS.

Bids Close.		See Eng. Record.
Apr. 26.	Marble Cliff, O.	Apr. 3
Apr. 26.	Akron, O.	Apr. 10
Apr. 26.	Port Clinton, O.	Apr. 10
Apr. 26.	Seattle, Wash.	Apr. 10
Apr. 26.	California	Apr. 10
Apr. 26.	Franklin, Pa.	Apr. 10
Apr. 26.	Albany, N. Y. Adv. Apr. 10 to 24.	Apr. 10
Apr. 26.	Chesterfield, N. J.	Apr. 10
Apr. 26.	Mingo Junction, O. Adv. Apr. 17.	Apr. 17
Apr. 26.	Orillia, Wash.	Apr. 17
Apr. 26.	Los Angeles, Cal.	Apr. 17
Apr. 26.	Columbia City, Ind.	Apr. 17
Apr. 26.	Riverside, Cal.	Apr. 17
Apr. 26.	Verona, O.	Apr. 17
Apr. 27.	Oak Harbor, O.	Apr. 10
Apr. 27.	Seattle, Wash.	Apr. 10
Apr. 27.	North Bend, Ore.	Apr. 17
Apr. 27.	Toronto, Ont.	Apr. 17
Apr. 27.	Belleville, N. J.	Apr. 17
Apr. 27.	Massachusetts	Apr. 24
Apr. 27.	Road Graders, Granite Falls, Minn.	Apr. 24
Apr. 27.	Harrisburg, Pa.	Apr. 24
Apr. 27.	Canastota, N. Y.	Apr. 24
Apr. 27.	Maryland	Apr. 24
Apr. 27.	Newton, Kan.	Apr. 24
Apr. 28.	Cleveland, O.	Apr. 10
Apr. 28.	Paterson, N. J. Adv. Apr. 17, 24.	Apr. 17
Apr. 28.	Cleveland, O.	Apr. 17
Apr. 28.	Ypsilanti, Mich.	Apr. 24
Apr. 28.	Des Moines, Ia.	Apr. 24
Apr. 28.	Indiana	Apr. 24
Apr. 29.	Pittsburgh, Pa.	Apr. 24
Apr. 29.	Nashville, Tenn.	Apr. 3
Apr. 29.	Albany, N. Y. Adv. Apr. 17, 24.	Apr. 17
Apr. 29.	Bemidji, Minn.	Apr. 17
Apr. 29.	Nashville, Tenn. Adv. Apr. 17.	Apr. 17
Apr. 29.	Urbana, O.	Apr. 17
Apr. 29.	Cannelton, Ind.	Apr. 17
Apr. 29.	New York, N. Y.	Apr. 24
Apr. 29.	Plain City, O.	Apr. 24
Apr. 29.	Jersey City, N. J.	Apr. 24
Apr. 30.	Coldwater, Mich.	Apr. 3
Apr. 30.	Cincinnati, O.	Apr. 10
Apr. 30.	Reading, Pa. Adv. Apr. 17.	Apr. 17
Apr. 30.	Delavan, Wis.	Apr. 24
Apr. 30.	Ohio	Apr. 24
Apr. 30.	Iowa Falls, Ia. Adv. Apr. 24.	Apr. 24
Apr. 30.	Sheboygan, Wis.	Apr. 24
May 1.	Kingston Station, Wilkes-Barre, Pa.	Mar. 27
May 1.	Starkville, Miss. Adv. Apr. 17, 24.	Apr. 17
May 1.	Colfax, Wash.	Apr. 17
May 1.	Rousville, Pa.	Apr. 17
May 1.	Newton, Kan.	Apr. 17
May 1.	Jeromesville, O.	Apr. 17
May 1.	Oswego, N. Y.	Apr. 24
May 3.	Hutchinson, Kan.	Apr. 17
May 3.	Washington	Apr. 17
May 3.	Ellensburg, Wash.	Apr. 17
May 3.	Oil City, Pa.	Apr. 17
May 3.	Ephrata, Wash.	Apr. 24
May 3.	Cincinnati, O.	Apr. 24
May 3.	Friars Point, Miss.	Apr. 24
May 3.	Indiana	Apr. 24
May 3.	Minneapolis, Minn.	Apr. 24
May 3.	Kalamazoo, Mich. Adv. Apr. 24.	Apr. 24
May 3.	Alexandria, La.	Apr. 24
May 4.	Plymouth, Wis.	Apr. 10
May 4.	Mt. Vernon, Wash.	Apr. 17
May 4.	Lake Charles, La.	Apr. 17
May 4.	Newburgh, N. Y.	Apr. 24
May 4.	Columbus, O.	Apr. 24
May 4.	Ashford, Wash.	Apr. 24
May 4.	Road Roller, Key West, Fla.	Apr. 24
May 4.	Mt. Vernon, Wash.	Apr. 24
May 4.	Jackson, Mich.	Apr. 24
May 4.	La Conner, Wash.	Apr. 24
May 4.	Indiana	Apr. 24
May 5.	Albany, N. Y. Adv. Apr. 17, 24.	Apr. 17
May 5.	Ann Arbor, Mich.	Apr. 24
May 5.	Illinois	Apr. 24
May 5.	Columbus, O.	Apr. 24
May 5.	Duluth, Minn.	Apr. 24
May 7.	Toledo, O.	Apr. 10
May 7.	Plymouth, Ind.	Apr. 17
May 7.	Columbus, O.	Apr. 24
May 7.	Bremen, Ind.	Apr. 24
May 10.	Bowling Green, O.	Apr. 24
May 10.	Russellville, Ala.	Apr. 24
May 11.	Albany, N. Y. Adv. Apr. 24.	Apr. 24
May 11.	Washington, Pa.	Apr. 24
May 11.	Frederick, Md.	Apr. 24
May 14.	Toledo, O.	Apr. 17
May 14.	Cincinnati, O.	Apr. 24
May 15.	Newton, Kan.	Apr. 10
May 17.	Colfax, Wash.	Apr. 17
May 17.	Kinsman, O.	Apr. 24
Jun. 3.	Grinnell, Ia.	Apr. 17

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Bids Close.		See Eng. Record.
Apr. 26.	Valves, Etc., for Locks, Panama Adv. Apr. 3.	Apr. 3
Apr. 27.	Steel Locks for Dam No. 29, Cincinnati, O. Adv. Apr. 10 to 24.	Apr. 10
Apr. 27.	Levee Work, Augusta, Ga. Adv. Apr. 17, 24.	Apr 10
Apr. 27.	Dam and Bulkhead, Waverly, Ia. Adv. Apr. 17.	Apr. 17
Apr. 28.	Dredging Ship Canal, Detroit, Mich. Adv. Apr. 17, 24.	Apr. 17
Apr. 28.	Stone for Jetty, Lone Tree, Wash.	Apr. 24
Apr. 29.	Ditch, Bucyrus, O.	Apr. 10
Apr. 30.	Irrigation Work, Browning, Mont.	Apr. 10
Apr. 30.	Ditch, St. James, Minn.	Apr. 17
May 1.	Drainage, New Bern, N. C.	Apr. 10
May 3.	Dredging, New Orleans, La. Adv. Apr. 3, 10, 24.	Apr. 3
May 4.	Irrigation Work, Provo, Utah	Apr. 17
May 4.	Drainage, Darrow, La.	Apr. 24
May 5.	Lock Machinery, Peterboro, Ont.	Apr. 24
May 10.	Revetment and Dike, Kansas City, Mo. (Two prop.) Adv. Apr. 10 to 24.	Apr. 10
May 10.	Flumes, Lewiston, Mont.	Apr. 24
May 11.	Breakwater, Detroit, Mich. Adv. Apr. 17, 24.	Apr. 17
May 12.	Irrigation, Saco, Mont. Adv. Apr. 10.	Apr. 10
May 12.	Crib Work, Detroit, Mich. Adv. Apr. 17, 24.	Apr. 17
May 12.	Needle Valve Outlets, Phoenix, Ariz.	Apr. 24
May 14.	Ditch, Dyersburg, Tenn.	Apr. 24
May 15.	Lock, Detroit, Mich. Adv. Apr. 17, 24.	Apr. 17
May 19.	Hull for Dredge, Louisville, Ky. Adv. Apr. 24.	Apr. 24
May 19.	Irrigation Wk., Payson City, Utah	Apr. 24
May 20.	Breakwater, Marblehead, O. Adv. Apr. 24.	Apr. 24
May 20.	Dike, Kansas City, Mo. (2 Prop.) Adv. Apr. 24.	Apr. 24
May 24.	Dike, Kansas City, Mo. (2 Prop.) Adv. Apr. 24.	Apr. 24

PUBLIC BUILDINGS AND SCHOOLS.

Bids Close.		See Eng. Record.
Apr. 26.	New York, N. Y. Adv. Apr. 3 to 24.	Apr. 3
Apr. 27.	Grand Forks, N. D.	Apr. 3
Apr. 27.	Newark, N. J.	Apr. 10
Apr. 27.	Patton, Cal.	Apr. 17
Apr. 27.	Northfield, Minn.	Apr. 17
Apr. 27.	Pittsburgh, Pa.	Apr. 17
Apr. 27.	Grand Forks, N. D.	Apr. 17
Apr. 27.	Towanda, Pa.	Apr. 17
Apr. 28.	Ardmore, Okla.	Mar. 27
Apr. 28.	Glen Rock, N. J.	Apr. 24
Apr. 28.	Warren, O.	Apr. 24
Apr. 28.	Cleveland, O.	Apr. 24
Apr. 28.	Graylings, Mich.	Apr. 24
Apr. 28.	Magnolia, Ia.	Apr. 24
Apr. 29.	Trenton, N. J.	Apr. 10
Apr. 29.	Hawthorne, Cal.	Apr. 17
Apr. 29.	Pelican Rapids, Minn.	Apr. 24
Apr. 29.	Toronto, Ont.	Apr. 24
Apr. 30.	Ft. Bliss, Tex. Adv. Apr. 3 to 24.	
Apr. 30.	Youngstown, O.	Apr. 10
Apr. 30.	Oberlin, O.	Apr. 10
Apr. 30.	Beltsville, Md.	Apr. 17
Apr. 30.	Kansas City, Mo.	Apr. 24
Apr. 30.	Toronto, Ont.	Apr. 24
Apr. 30.	Ft. Atkinson, Wis.	Apr. 24
May 1.	Apalachicola, Fla.	Apr. 10
May 1.	Philadelphia, Pa.	Apr. 17
May 1.	Brookville, O.	Apr. 17
May 1.	Salina, Kan.	Apr. 17
May 1.	Auburn, Me.	Apr. 17
May 1.	Columbia Heights, Minn.	Apr. 24
May 1.	Elkhart, Ind.	Apr. 24
May 1.	Brookville, O.	Apr. 24
May 1.	Beaumont, Tex.	Apr. 24
May 3.	Chicago, Ill.	Apr. 17
May 3.	St. Catharines, Ont.	Apr. 17
May 3.	Elizabeth City, N. C.	Apr. 24
May 3.	Worcester, Mass.	Apr. 24
May 3.	Ft. Wayne, Ind.	Apr. 24
May 3.	Defiance, Va.	Apr. 24
May 3.	Towanda, Pa.	Apr. 24
May 3.	Wichita, Kan.	Apr. 24
May 3.	Gatesville, Tex.	Apr. 24
May 4.	Rushville, Ill.	Apr. 10
May 4.	Ft. Pierce, Fla.	Apr. 17
May 4.	Wadsworth, O.	Apr. 17
May 4.	Milan, Minn.	Apr. 17
May 4.	Norwalk, Cal.	Apr. 17
May 4.	Columbus, O.	Apr. 24
May 4.	Page, Neb.	Apr. 24
May 4.	Council Bluffs, Ia.	Apr. 24
May 4.	Graysville, Ind.	Apr. 24
May 5.	Walla Walla, Wash.	Apr. 10
May 5.	Ft. Screven, Ga.	Apr. 17
May 5.	Grants Pass, Ore.	Apr. 17
May 6.	Aberdeen, S. D.	Apr. 10
May 6.	Bonaparte, Ia.	Apr. 17
May 6.	Billings, Mont.	Apr. 24
May 7.	Seattle, Wash.	Apr. 24
May 8.	New Albany, Ind.	Apr. 10
May 10.	Brooklyn Heights, O.	Apr. 17
May 10.	Tampa, Fla.	Apr. 24
May 10.	Lake Helen, Fla.	Apr. 24
May 10.	Cleveland, O.	Apr. 24
May 11.	Corpus Christi, Tex.	Apr. 17
May 12.	Bryan, Tex.	Apr. 10
May 12.	Homestead, Pa.	Apr. 24
May 13.	Park City, Utah	Apr. 10
May 14.	New Haven, Conn.	Apr. 10
May 14.	Aberdeen, S. D.	Apr. 17
May 14.	Eau Gallie, Fla.	Apr. 24
May 15.	San Antonio, Tex.	Apr. 24
May 17.	Concord, N. H. Adv. Apr. 10, 17.	Apr. 10
May 17.	Toledo, O.	Apr. 24
May 17.	Sioux Falls, S. D.	Apr. 24
May 18.	Laurel, Miss.	Apr. 17
May 21.	Pittsburgh, Pa. Adv. Apr. 24.	Apr. 24
May 26.	La Salle, Ill.	Apr. 24
Jun. 1.	Harrisburg, Pa.	Mar. 13
Jun. 3.	Chillicothe, Mo.	Apr. 24

PRIVATE BUILDINGS.

Bids Close.		See Eng. Record.
Apr. 24.	Brooklyn, N. Y.	Apr. 24
Apr. 28.	Starbuck, Minn.	Apr. 17
Apr. 27.	Minneapolis, Minn.	Apr. 24
Apr. 29.	Moorehead, Minn.	Apr. 17
Apr. 30.	Wilkes-Barre, Pa.	Apr. 24
May 1.	Waterville, Minn.	Apr. 17
May 10.	Charleston, S. C.	Apr. 17

MISCELLANEOUS.

Bids Close.		See Eng. Record.
Apr. 27.	Steel Stay Bolt Iron, etc., Panama.	Apr. 10
Apr. 28.	Derrick and Hoist, Seattle, Wash.	Apr. 17
Apr. 28.	Insulation for Bldg., Seattle, Wash.	Apr. 17
Apr. 28.	Steel Doors, Etc., New Orleans, La. Adv. Apr. 24.	Apr. 24
Apr. 28.	Grading, Washington, D. C.	Apr. 24
Apr. 29.	Boat, Wheeling, W. Va. Adv. Apr. 3 to 24.	Apr. 3
Apr. 29.	Landscape Gardening, Toronto, Ont.	Apr. 24
Apr. 30.	Garbage Disposal, Manchester, N. H.	Apr. 17
Apr. 30.	Retaining Walls, Wilkes-Barre, Pa.	Apr. 17
May 1.	Sprinkler System, Boston, Mass.	Apr. 17
May 1.	Electric Railways, Columbus, O.	Apr. 17
May 1.	Steel Plates, Etc., Panama	Apr. 24
May 3.	Pier Shed, Panama.	Apr. 17
May 4.	Fences for Water Board, New York, N. Y. Adv. Apr. 17.	Apr. 17
May 5.	Castings, Etc., Panama.	Apr. 24
May 10.	Furnishing Willows, New Orleans, La.	Apr. 24
May 13.	Scows, Louisville, Ky. Adv. Apr. 17, 24.	Apr. 17

★Items marked thus give the names of parties awarded contracts.

New Construction Activities

The quarterly statement of the United States Steel Corporation shows an increase in net earnings of about $2,000,000 over the last statement. The encouraging feature of this report is not this slight increase, however, but the fact that the January earnings were less than $2,000,000, February earnings over $3,000,000 and March earnings more than $7,000,000. This last nearly equaled the March earnings last year. The United States Steel Corporation is operating at 75 per cent of capacity, while independent mills are said to be running at from 85 per cent to full capacity. This may mean that the steel corporation is holding off for the railroad orders that are to be expected when new railroad underwriting is arranged. This is to be looked for in May and June, and from present indications the bond market will absorb such issues without difficulty. Already the larger railroads are following the lead of the Pennsylvania's replacement buying by putting men on in car and locomotive shops in large numbers—the first step toward the wholesale renewal made necessary by two years' severe retrenchment.

Late reports indicate structural steel bookings of 110,000 tons in March, as against an average of 51,000 tons each for the three preceding months. This shows March to be the best month since last July.

Buildings

A hospital building contracted for in New York City will cost $178,000. A school building to cost $183,000 has been contracted for at Toledo. Another school building contracted for at McKeesport, Pa., will cost $147,000 Contract for a $180,000 building at Fort Worth, Texas and for a $150,000 building at Spokane, Wash., are reported. Among the $100,000 building contracts let last week are a residence at Waterbury, L. I., an apartment house at Baltimore, an armory at Jacksonville, Fla., a warehouse at Toledo and a skating rink at Seattle. Plans are being prepared for a twenty-four story building to cost $1,000,000 in Salt Lake City, Utah. Bids are desired on a university building at Cincinnati, and it is reported that a $300,000 theater will soon be let in Seattle. Plans have been filed in New York City for a $300,000 apartment house and for a $350,000 factory building. It is reported that plans are being prepared in Brooklyn, N. Y., for a $250,000 market building and for a $225,000 theater. Plans have been completed for a $500,000 lodge building to be erected in St. Louis.

Bridges and Paving

Plans have been completed for a $100,000 bridge at Ottawa, Ont. Bids are desired for three reinforced concrete bridges averaging 380 ft. in length at Rome, Ga. Bids are desired for a 700-ft. highway bridge at North Platte, Neb. Paving and road work is increasingly active. Twenty contracts recently awarded by the State Highway Department of Ohio totaled $464,000. Massachusetts awarded last week $85,000 worth of contracts for State highways. Contracts awarded at Fargo, N. D. for paving work on bids opened April 8 total $110,000. Bids are desired in New York City, Brooklyn and Long Island City on considerable paving work. Bids are also desired by the Commissioners of the District of Columbia for paving work. At Sheboygan, Wis., bids are desired May 4 on 60,000 sq. yd. of reinforced concrete paving. Hazelhurst, Miss., will let June 7, $150,000 worth of road work. Alexandria, La., desires bids on May 3 for 25 miles of gravel road. Bids are also desired in Baton Rouge, La., for 192,000 sq. yd. of pavement. At Forney, Texas, bids are asked on road work that will cost $200,000, and bids are also asked at McKinney, Texas, for constructing 125 miles of roads. Two unusually large road bond issues have been voted recently, one of $1,250,000 at Portland, Ore., and one of $900,000 at Sherman, Texas.

Waterworks and Sewers

A waterworks system to cost $138,000 has been contracted for at Warrenton, Ore. Low bid on the dam to be built near Salt Lake City, proposals for which were opened April 21, was $70,485. It is reported that this city will receive bids on June 1 for $200,000 additional bonds to complete new water supply projects. Bids are desired on considerable cast-iron pipe at Philadelphia. It is advertised that bids will soon be asked on two additional contracts in connection with the new reservoir at Hartford, Conn. An expenditure of over $200,000 has been recommended by the engineers to improve the water supply of Madison, Wis. Bids are desired May 6 at Newark for over 5000 tons of cast-iron water pipe.

Bids are desired on further sewer work in Brooklyn, New York and Long Island City. Bids are desired at Washington, D. C., for constructing one-third of a mile of 7-ft. trunk sewer. The Union Station Company of Chicago desires bids for building a trunk sewer near the present Union Depot. It is reported that a $107,000 sewer contract is to be let this summer at Syracuse, N. Y. Plans are being completed for sewer work to cost $100,000 at Canton, Ohio. An ordinance authorizing a $500,000 loan for street and sewer improvement at Wilmington, Del., has been signed by the Mayor. An ordinance providing for a $139,000 sewer system has been passed by the city council of St. Paul, Minn. Cleburne, Texas, has sold sewer bonds in the sum of $180,000.

Miscellaneous

The lowest bid opened April 26 for flood protection work at Indianapolis was $458,000. A $180,000 levee contract has been awarded at Clarksdale, Miss. Bids are desired May 26 on 4,500,000 cu. yd. of levee work at Memphis, Tenn. Bids are also desired on 2,500,000 cu. yd. of drainage excavation at Bartow, Fla. A $300,000 contract has been awarded at Glacier, B. C., for placing 5 miles of tunnel lining on the Canadian-Pacific Railroad. Bids will be received for driving a 4-mile rock tunnel at Wilkes-Barre, Pa., by the Lehigh Valley Coal Company. The New York City subway section on which bids were opened April 20 has been awarded at $2,744,000. A section of Brooklyn elevated line will be let by the New York Public Service Commission on May 18. Contracts totaling $3,500,000 have been awarded for building 28 miles of railroad for the Chesapeake & Ohio Northern near Portsmouth, Ohio. Bids will soon be asked on grade-crossing elimination work in Buffalo which will cost $350,000.

WATERWORKS.

Items Arranged Geographically

★**Boston, Mass.**—Contract awarded Apr. 16 by Metropolitan Water and Sewerage Bd., Boston, for constructing masonry tower around steel water tank to John Cashman & Sons Co., 247 Atlantic Ave., Boston, at $46,000.

Newton, Mass.—Lowest bids opened Apr. 26 by Metropolitan Water and Sewerage Board, Boston, for laying 8000 ft. c.-i. water pipe in Newton submitted by Andrew M. Cusack, of West Roxbury, at the following bid: 8000 lin. ft. 60in. c.i. pipe, $3.74; 110 lin. ft. 12in., $1; 185 cu. yds. rock excav., $7.40; 30 cu. yds. earth excav. below grade, $1.50; 60 cu. yds. concrete masonry, $6.75; total, including valves, $32,369. Next 3 lowest bids: Jas. L. Pierce Co., $32,615; Rowe Contr. Co., $33,047; Bonnio & Petitti, $34,727.

Shrewsbury, Mass. — Following are totals of bids opened by Water Comrs., Apr. 24, for constructing waterworks: Hanscom Constr. Co., Boston, $70,300; Fred. A. Houdette & Son, Boston, $74,500; Danl. D. Pietro, Boston, $75,000. Various bids for many variations of pumping machinery were also received. Contract not yet awarded, as all bids were above appropriation; bids still being considered. Geo. E. Stone, Town Clk.

Westfield, Mass.—Citizens have voted against building reservoir, sewers or drains.

Hartford, Conn.—Bd. Water Comrs. expect to ask bids soon on Contract 9 of the Nepaug Reservoir, which includes construction of East Dike, and also on Contract 10, construction of Richards Corner Dam; later in the year contract will be let for cearing the entire Nepaug Reservoir, area of about 900 acres, and grubbing about 125 acres of shore line, as stated in our advertising columns. Caleb Mills Saville, Ch. Engr., Pilgard Bldg., Hartford.

Batavia, N. Y.—I. J. Carmichael, City Clk., writes bids are desired until May 5 for 10,000 ft. 6-in. and 800 ft. 8-in. Class B c.-i. pipe.

Contracting News

Of Special Interest to Engineers, Contractors, Builders and Manufacturers of Engineering and Building Supplies

Brooklyn, N. Y.—Bids desired until May 5 by Wm. Williams, Comr. Water Supply, Gas and Electricity, New York City, for furnishing, delivering, unloading, stacking and storing c. i. pipe, special and valve box castings, valves and double nozzle fire hydrants.

Buffalo, N. Y.—Bids desired until May 4 by Dept. Pub. Wks. (F. G. Ward, Comr.), for furnishing 3000 rubber valves for Massachusetts Ave. Pumping Station; also an air-compressor for Porter Ave. Pumping Station.

Elmira, N. Y.—Based on an appraisal made by Henry Floy, Consulting Engr., 165 Bway, New York, this City voted to purchase the water works and system of the Elmira Water, Light & Railroad Co. of Elmira, which owns the system supplying City. The price agreed upon is $1,500,000, which is to be paid over May 1st, at which time the City takes title. The money has been raised by the sale of Municipal Bonds.

New York, N. Y.—Bids desired until May 7 by Wm. Williams, Comr. Water Supply, Gas and Electricity, New York City, to furnish, deliver and lay water mains and appurtenances in Grand Boule., Barreto, Barry, Whittier, E. 142d and several other streets. Security $19,000. Also furnishing and constructing a concrete floor in engine room of Grant City Pumping Station, Boro. Richmond. Security $2,000.

Niagara Falls, N. Y.—It is reported that $90,000 will be spent for new water mains this year F. S. Parkhurst, City Engr.

Trumansburg, N. Y.—The Village Trustees and Business Men's Assoc. reported considering question of constructing water works.

Newark, N. J.—Bids desired until May 6 by Bd. Street and Water Comrs. (Morris R. Sherrerd, Ch. Engr.) for furnishing c.-i. pipe and special castings, advertised in Engineering Record.

Erie, Pa.—Bids are now being taken by the Bd. of Water Comrs. for increasing the elevation of the high service standpipe 40 ft., from plans and specifications of Chester & Fleming, Pittsburgh. The present standpipe is 25 ft. diam. and 80 ft. high, and will be increased to 120 ft height.

Johnstown, Pa.—Plans reported completed by Johnstown Water Co. for a new reservoir at Laurel Run.

Pennsylvania. — Following are among the permits issued by the State Dept. of Health, Harrisburg (Dr. Saml. G. Dixon, Comr.), from Mar. 15 to Apr. 15:

Philadelphia—Sedimentation basin for Torresdale filtration plant.

Dauphin Consolidated Water Supply Co.—Settling basin with temporary liquid chlorine disinfection.

Wyoming Valley Water Supply Co., Hazelton—Storage reservoirs.

Gallitzin — Distributing system and storage reservoir.

Alburtis — Extensions to distributing system.

Morgantown Water Co.—Extensions to system.

Duquesne—Emergency disinfection apparatus.

East Wheatfield Township, Cambria County — Dumping equipment and distributing system.

Pennsburg Water Co.—Extension to distributing system.

Reserve Township, Allegheny County—Distributing system.

Brockwayville — Extensions to distributing system.

Mill City Water Co.—Extensions to distributing system.

Malvern—New source of supply and extensions to distributing system.

Newmanstown Water Co.—Gravity pipe lines and new sources of supply.

Philadelphia, Pa.—Bids desired until May 25 in Room 225, City Hall, for furnishing and laying c.-i. water pipe under Contract No. 260, approximately 17,000 ft. 48-in., 3300 ft. 30-in. and 21,000 ft. 24-in., advertised in Engineering Record.

Milton, Del.—It is proposed to construct water works, at a cost of $20,00, from plans of Chas. E. Collins, of Philadelphia, Pa. A. E. Jefferson, City Clk.

★**Southport, N. C.**—Contracts reported awarded for material for water works and sewer system as follows: To Chicago Bridge & Iron Works, tower and tank; Southern Eng. Co., Charlotte, reinforcement steel; Bibb Sewer Pipe Co., Macon, Ga., sewer pipe; Southern Iron & Equipment Co., Atlanta, manholes; U. S. Cast Iron & Fdry. Co., Chattanooga, cast-iron pipe; General Fire Extinguisher Co., Charlotte, lead, jute and valves; Columbian Iron Works, Chattanooga, hydrants; Pipe & Flush Tank Co., New York, tanks; Roger Moore Co., Wilmington, brick;

★*Items marked thus give the names of parties awarded contracts.*

Platt Iron Works, Dayton, O., pumps, and Ingersoll-Rand Company, sundries. Total cost about $20,000.

★**Manning, S. C.**—Contract for constructing water works at $28,313 and extension of sewer system at $4,377 awarded Apr. 20 to Walton & Wagner, of Atlanta, Ga. Sewer work includes 10,200 ft. 8 in. t. c. pipe; water works includes 24,309 ft. 4, 6, 8 and 10-in c. i. pipe valves, hydrants 250,000 gal. concrete reservoir and 100,000 gal. tank on 100-ft. tower. Engineers, Shand Eng. Co., Columbia.

Key West, Fla.—All bids opened Apr. 17 to furnish water mains, hydrants, valves and connections for extension of pipe line have been rejected, and matter is held up temporarily. Not yet decided when new bids will be received. Chas. J. Curry, City Aud.

Port Richey, Fla.—The installation of an electric lighting plant, water works, and sewer system under consideration. S. Wessilius, of Grand Rapids, Mich., is reported interested.

Alliance, O.—Bids are now being received by the City Clerk for an elevated steel tank of 40,000 gals. capacity, from plans of Chester & Fleming, Pittsburgh, Pa.

Bluffton, O.—Bids desired until May 17 by Bd. Pub. Wks. (D. W. Bixler, Clk.) for improvements to water works, advertised in Engineering Record. W. J. Sherman Co., Engrs., Toledo.

★**Chillicothe, O.**—Contracts awarded by Bd. Pub. Wks. Apr. 16 for constructing coagulating basin and filter plant as follows: To Pittsburg Filter Mfg. Co., Pittsburgh, Pa., at $9,034, for mechanical equipment and filter; to F. D. Martin Constr. Co., Kansas City, for concrete work, including settling basin, coagulating basin and filter building and short sewer, $13,775; Thermal Efficiency Co., Kansas City, Mo., for 5 centrifugal pumps and motors, $3,597.

★**Cleveland, O.**—Contract has been approved by Bd. of Control, with the Rensselaer Valve Co., Troy, N. Y., for valves, at $41,676.

Bids desired until May 6 by A. R. Callow, Comr. Purchases and Supplies, for Venturi meters; also steam and feed water piping for Division Ave. Pumping Station; also tunneling machine for West Side Tunnel construction.

East Liverpool, O.—Bids desired by E. J. Smith, Dir. Pub. Service, until May 28 for the purchase of $200,000 bonds, to be used for water works improvements. Chester & Fleming, Engrs., Pittsburgh, Pa.

Rocky River, O.—Bids desired until May 18 by Frank Mitchell, Village Clk., to furnish material and install water mains in North Ridge Rd. and North View Rd. The W. H. Evers Eng. Co., Engrs., The Arcade, Cleveland.

★**Toledo, O.**—Contract reported awarded to M. M. Comer, of Toledo, for constructing substructure of proposed high pressure fire service pumping station at about $48,000 (bids opened Mar. 31). For unit prices see Engineering Record of Apr. 10.

Gary, Ind.—It is proposed to construct 9000 ft. 12-in. c.-i. water pipe from Gary to Aetna.

Grand Rapids, Mich.—Citizens voted Apr. 5 to issue $115,000 bonds for constructing pumping station to enter the hill district; bids for construction will be received May 6 by L. D. Cutcheon, Secy. General Mgr. Water Dept.

Aurora, Ill.—Citizens voted Apr. 20 to issue $75,000 bonds, to be used for new artesian well, extending city mains and for other water works improvements.

Chicago, Ill.—Bids desired until May 3 by Bd. Local Improv. (E. J. Glackin, Secy.), for constructing water-service pipes in portions of S. Albany Ave., N. Leavitt, Rice and several other streets.

Bids also desired until May 6 for constructing water service pipes in Constance and Montrose Ave., and several other streets.

Paris, Ill.—Bids desired until May 18 by City Clerk, for constructing 4 earth dams, a diversion channel, a wet well and an intake and 2 sewers. Fleming, Babbitt & Enger, of Urbana, Engrs.

Kenosha, Wis.—City Council reported to be considering constructing a new pumping station on Washington Island.

Madison, Wis.—Engineers Mead & Seastone, of Madison, and Alvord & Burdick, of Chicago, Ill., in a report to city on its water supply, recommends adoption of Lake Mendota as source of water supply; retention of present artesian well system; enlargement of present pumping station; extension of water plant; installation of new pumping engine; erection of new 150-ft. smokestack; installation of a 200-hp boiler. If Lake Mendota was used exclusively, cost of change would be $189,280 or $212,390, contingent on use of pressure or gravity filters.

★**Milwaukee, Wis.**—Following are reported to be the bids opened Apr. 19 by Fred G. Simmons, Comr. Pub. Wks., for constructing Shore Tunnel and all shafts of the Linwood Ave. intake on Western shore of Lake Michigan (price given per lin. ft.): F. H. Nakielski, Milwaukee, $34.92; Jos. Hanreddy (awarded contract), $49; O'Brien & Jackson, Chicago, $41.90; Oscar Daniels & Co., New York, $67.50; Thos. Harmon & Co., $53; Rolf Constr. Co., Milwaukee, $52.99.

Knoxville, Ia.—C. H. Slayman, of Hamilton, reported selected to prepare plans for water works.

Nevada, Ia.—Bids desired until May 11 by R. A. Davis, City Clk., for constructing an artesian well, same to be approximately 2000 ft. deep and 16 in. at top for approximately 150 ft. and to end up with an 8-in. hole in the Jordan sandstone; all to be tightly cased at least to the top of the St. Peter sandstone.

Orange City, Ia.—Citizens reported to have voted $10,500 bonds to purchase water tank and make other water works improvements.

Blackbuck, Minn.—Bids desired May 5 by H. M. Latterell, Village Recorder, for a steel water tank of 60,000 gals. capacity and 80 ft. steel tower, including all labor and material.

Osseo, Minn.—Bids desired until May 4 by M. M. Carpenter, Village Clk., Recorder for constructing water works. W. C. Buck, Engr., Minneapolis.

Broken Bow, Neb.—Citizens reported to have voted $6,000 bonds for water works extension and $10,000 for street lighting.

★**Nelson, Neb.**—Contract awarded Apr. 16 for 40,000 lin. ft. 8-in. water conduit line as follows: Labor, to Inter Mountain Bridge & Constr. Co., Tecumseh; pipe, to Redwood Mfrs. Co., San Francisco, Cal.; valves and fittings, to Crane & Co., Omaha, Neb. J. W. Price, City Engr.

Sterling, Neb.—An election will probably soon be held to vote on issuing $15,000 bonds for constructing water works.

Belfield, N. D.—Bonds in the sum of $20,000 have been voted for the installation of an electric lighting plant and water works.

★**Lemmon, S. D.**—Bids were opened Apr. 21 for about 9000 ft. water main extension from plans of Chas. L. Pillsbury Co., Metropolitan Life Bldg., Minneapolis, Minn., as follows: Ceylon Cement & Tile Co., Ceylon, Minn., $10,980; Rector Coolsaet, Marshall, Minn., $10,380; C. A. Ingalls, Lemmon, S. D., $10,571. C. A. Ingalls, Lemmon, $10,608 (awarded contract). Elmer F. Sheets, City Aud.

★**Clyde Park, Mont.**—Contract for constructing waterworks, reported awarded Apr. 15 to McLaughlin & O'Neill, of Livingston, at $15,318. Engineer, Chas. T. Sacket, of Livingston.

Fromberg, Mont.—Bonds in the sum of $25,000 will be voted for construction of water works, from plans of B. T. Ellis, of Billings.

Havre, Mont.—Bids desired until May 3 by Jas. G. Holland, City Clk., for installing service pipes in Special Improv. Dists. Nos. 64, 65, 66, 72, 74 and 75.

Marshall, Mo.—Henrici, Kent & Lowry, Kansas City, are making appraisal of complete water works for Marshall and assisting city in opening up books and accounts in accordance with new State Pub. Utility Comn. rulings.

Ashdown, Ark.—Bids desired by J. M. Johnson, Secy. Water Works Dist., until May 6, for furnishing material and constructing water works to include 37,760 ft. mains, pump house, reservoirs, 50,000 gal. tank and tower hydrants, valves, etc. Engineers, Winters & Dove of Ft. Smith.

Aransas Pass, Tex. — Bonds to the amount of $35,000 reported sold, proceeds to be used for installation of an electric light plant and water works.

Livingston, Tex.—Citizens reported to have voted to construct water works to cost about $20,000.

Mineola, Tex.—C. M. Dozier, Secy. Mineola Ice, Light & Water Co., writes that about $18,000 will be spent in the near future, for extending water mains.

Rosiyn, Wash.—Citizens reported to have voted $28,000 bonds to extend its gravity water system.

Amity, Ore.—Bids reported desired until May 17 by E. W. Rea, City Treas., for $15,000 water bonds.

★**Eugene, Ore.**—Contract awarded for cement work in connection with construction of reservoir to Guy Pyle, of Eugene, at $10,635.

★**Warrenton, Ore.**—Contract reported awarded to C. H. Green Co., Spokane, Wash., for constructing gravity system of water works to extend from Lewis and Clarke River by way of Ft. Stevens, a distance of 21 miles; cost $138,000. Contractors have purchased the bonds.

Palo Alto, Cal.—Bonds in the sum of $40,000 reported sold, to be used for extensions to sewer and water system and for paving improvements.

★**Ogden, Utah.**—Contracts covering additional material and work on the canyon pipe line awarded by City Comrs. Apr. 17 as follows:

★Construction contract to Green Constr. Co. of Toledo at following bid: 1000 cu. yds. embankment, 65 cts.; 22,530 cu. yds. excav., 63 cts.; 11,300 lin. ft. Redwood pipe to haul, 4 cts.; 80-ft. through span American bridge, $1,500; total $23,117. Next 3 lowest bids P. J. Moran Co., Salt Lake City, $26,684; Smith & Spragine, Salt Lake City, $27,844; Lyman & Samuels, Salt Lake City, $30,645.

★Furnish and lay 11,300 ft. Redwood pipe, to the Portland Wood Pipe Co. of Portland, Ore. at $1.60 per ft. total $18,080.

Salt Lake City, Utah.—S. Q. Cannon, City Engr., has been authorized by City Comn. to start preliminary work on reservoir to be built in Parley's canyon. Part of site was cleared of brush last fall and bedrock was located on one side of the canyon. When completed the reservoir will store 1,000,000,000 gals. of water.

City Engineer was also instructed to proceed with plans and specifications for a sub-surface reservoir in City Creek canyon just above Pleasant Valley, where it is proposed to store about 7,000,000 gals. in an equalizing reservoir; cost about $22,000.

Local press reports state that bids are desired by City Recorder until June 1 for the purchase of $200,000 bonds, to be used for building a 12-in. supply line from 13th E. relief tank to a point near 5th Ave., and N St. for the improvement of water pressure on the northeast bench; for completing lake Phoebe-Mary dam; for work on Twin Lakes project; for work on Parley's canyon reservoir; for finishing the 5th S. St. distribution reservoir; for extending city's canal from Little to Big Cottonwood, and for acquiring additional water rights.

Karl A. Scheid, City Recorder, writes that following are bids opened Apr. 21 for constructing dam at Twin Lakes (bids were received on 2 different types of construction):

Rubble concrete 4 lowest bids: Jas. Stewart & Co., New York, $70,485; J. P. Moran Contr. Co., Inc., Salt Lake City, $70,600; Sam Williams, Salt Lake City, $74,725; John Shea, Salt Lake City, $82,025.

Reinforced concrete Ambursen type, and including 5 per cent royalty: Ryberg Bros., Logan, $74,681; Stewart Engr. Cor., New York, $74,996; Sam Wiliams, Salt Lake City, $78,109; Morrison Kunsden Co., Boise, Idaho, $78,283.

Montreal, Que.—The Bd. of Control is reported to favor spending $8,550 for new plans for enlargement of filtration plant, to be prepared by Hering & Fuller, of New York; also building, under agreement with the Cook Constr. Co., of a test wall, to cost $16,000. The Controllers will also urge necessity of proceeding at once with extension of filtration plant.

Toronto, Ont.—Bids desired until May 4 by Bd. Control (T. L. Church, Mayor, Chmn.) for water tube boilers at Main Pumping Station, advertised in Engineering Record.

Assinibola, Sask.—J. R. Nolan, City Secy.-Treas., writes plans are being prepared by Murphy & Underwood, Saskatoon, for water works; cost $65,000.

SEWERAGE AND SEWAGE DISPOSAL.

Items Arranged Geographically

Wellesley, Mass.—Wm. H. Blood and Chas. E. Fuller, of Wellesley, and Isaac Sprague, of Wellesley Hills, have been appointed as a committee to have charge of proposed sewer system.

Westfield, Mass.—See "Water Works."

Brooklyn, N. Y.—Bids desired until May 12 by L. H. Pounds, Boro. Pres., to construct complete superstructures of sewage pumping station, Sect. No. 2, sanitary outlet sewers and the force main in Ave. V, together with all sanitary outlet sewers, storm outlet sewers and the force main and sewage pumping station, etc., within parcel of land between W. 10th and W. 11th Sts., and Ave. V and a line parallel therewith and 200 ft. southerly therefrom. Security $20,000.

Greece, N. Y.—Bids desired until May 5 by Sewer Comrs. Sewer Dist. No. 3, to construct sewers in said district. Wm. C. Gray, Engr., 77 Main St. W., Rochester.

Long Island City, N. Y.—Bids desired until May 5 by Maurice E. Connolly, Boro. Pres., to construct sewers and appurtenances in Canal, Shaw and Guion Aves., Orchard and several other streets. Total security, $33,600.

New York, N. Y.—Bids desired until May 6 by Douglass Mathewson, Pres. Boro. Bronx, to construct sewers and appurtenances in Plimpton and Corlear Aves., W. 234th St. and Review Pl. Total security $11,900.

Niagara Falls, N. Y.—The Bd. of Pub. Wks. has approved issue of $75,000 bonds for construction of sewers. F. S. Parkhurst, City Engr.

Olean, N. Y.—Bids reported desired until May 15 by H. E. Bunce, City Engr., to construct 8000 ft. 10 to 18-in. vitr. pipe sewer. Probable cost $8,000.

Syracuse, N. Y.—The proposed Huntley tract sewer, will include 34,300 ft. 8 to 27-in. pipe sewer, average depth 12 ft. and 27 to 66-in. brick or concrete sewer, average depth 10 ft.; estimated cost $112,000. Contract will be let late this summer, by the Bd. of Contract and Supply. M. B. Palmer, Deputy City Engr.

Yonkers, N. Y.—Bids desired until May 3 by Bd. Contract & Supply (Edw. P. Walsh, Secy.), for constructing house and storm water sewers in a portion of Nepperhan Ave.

Verona, N. J.—T. E. Brooks, Boro. Clk. writes citizens voted Apr. 27 to issue $80,000 bonds for sewer system, from plans of Clyde W. Potts, 30 Church St. New York, and Frank W. Crane, 460 Bloomfield Ave., Montclair. E. N. Bush, Chmn. Sewer Com.

Pennsylvania.—Following are among the permits issued by the State Dept. of Health at Harrisburg (Dr. Saml. G. Dixon, Comr.):

Duquesne, lateral sewer exeensions.
Wilkes-Barre, lateral sewer extensions.
Philadelphia, lateral sewer extensions.
Pittsburgh, intercepting sewer.

West Chester, Pa.—Bids desired until May 12 by Borough Council for an additional sanitary sewer system, including 14,000 ft., 8, 10 and 12 in. terra cotta pipe and 32 brick manholes, advertised in Engineering Record. N. R. Rambo, Boro. Engr., West Chester.

★**Baltimore, Md.** — Contract awarded Apr. 21 by Sewerage Comn. (Calvin W. Hendricks, Ch. Engr.) on Sanitary Contract 149, Sect. 1, of Gwynn's Falls interceptor, to Jas. Ferry & Sons at $26,816. Next 3 lowest bids: M. O. Herron & Sons, $27,123; Thos. Hampton, $29,775; Smith & Ruggles, $29,841.

Easton, Md.—Bids desired until May 25 by Mayor for constructing 2 sludge beds, 7 sand filter beds and 2 motor driven sludge and sewage pumps with piping, valves, etc., at sewage disposal works, and extension of South Outfall Sewer, advertised in Engineering Record. Kastenhuber & Anderson, Acting Town Engrs., Easton.

Wilmington, Del.—Mayor Howell reported to have approved ordinance to borrow $500,000 for improvement of streets and sewers.

Washington, D. C.—See "Paving and Roads."

Washington, D. C.—Following are 4 lowest bids opened Apr. 21 for constructing about 1000 lin. ft. trunk sewer: Geo. Hyman, Washington, $5,300; Warren F. Brenizer Co., Washington, $5,370; Wm. F. Cush, Washington, $5,621; Whiting-Turner Constr. Co., Baltimore, Md., $6,624. Asa E. Phillips, Supt. Sewer Dept., D. C.

Bids desired until May 12 by Comrs. D. C. (Oliver P. Newman, Comr.) for constructing sewers in District of Columbia, advertised in Engineering Record.

Southport, N. C.—See "Water Works."

Greenville, S. C.—Citizens voted Apr. 20 to issue $25,000 bonds for extension of sewer system. C. P. Ballinger, City Engr.

Manning, S. C.—See "Water Works."

★**La Fayette, Ga.**—Contract awarded Apr. 19, for furnishing material for sewer system as follows 5 miles 8 and 10 in. sewer pipe to Chattanooga Sewer Pipe & Fire Brick Co., Chattanooga, Tenn.; 100 tons castings to Columbian Iron Wks., Chattanooga, Tenn.; 25 syphons to Pacific Flush Tank Co., New York; and 200 bbls. cement to M. A. Street, La Fayette. J. B. McCrary Co., Atlanta, will do the construction work.

Port Richey, Fla.—See "Water Works."

Paducah, Ky.—City will soon ask bids for constructing Sect. 1 of the Third Dist. Sewer System. Money for work is on hand and contract drawings will be completed shortly. Address L. A. Washington, Comr. Pub. Wks.

Canton, O.—Wm. E. Sarver, City Engr., reported to be completing plans for new sewers, to cost about $100,000.

★**Cincinnati, O.**—Contract awarded Apr. 14 for constructing trunk sewer in Ludlow Run from Spring Grove Ave. to Ellis St. to the Connelly Constr. Co., Cincinnati, at $35,704.

Bids desired until May 3 by Director Pub. Service (Parke S. Johnson, Secy.), to construct sewers in Julia Ann St. and Larkspur Ave.

Bids desired until May 11 by Director Pub. Service (P. S. Johnson, Secy.), for constructing sewers in Manss, Latham and Beech Aves. and Daniels St.

★**Cleveland, O.**—Contracts have been awarded by Bd. of Control for construction of sewers as follows: To Wm. Lehmann, for sewer on 105th St., at $50,879 (bids opened Apr. 15), and to Brookside Constr. Co. for sewer on Eddy Road, at $15,885 (bids opened Apr. 8).

Bids desired until May 6 by A. R. Callow, Comr. Purchases and Supplies, to construct sewers in Valley, Spring and Jennings Rds. and St. Clair Ave.

Kent, O.—Lowest bid recently received for constructing sanitary sewer system reported submitted by Wm. Hunt, of Akron, at $59,600.

Lowellville, O.—Following are reported to be lowest bids recently received by Village Council for constructing sewers: South Side sewer, A. W. Smedley, of Youngstown, at $4,474; North Side sewer, Turner-Olsen Contr. Co., Youngstown, $24,961. Bids rejected on south side sewer and will be readvertised.

★**Urbana, O.**—Contracts for storm sewers reported awarded by Bd. of Control Apr. 12 as follows: S. Main St., to the Chas. F. Smith Co., Dayton, at $9,342; Scioto St. and Kenton St., storm sewers, to Boyd & Cook, at $7,872.

★*Items marked thus give the names of parties awarded contracts.*

South Bend, Ind.—Bids desired until May 15 by Bd. Pub. Wks. (E. M. Morris, Chmn.) for trunk sewer on portion of Michigan St., advertised in Engineering Record.

Chicago, Ill.—Bids desired until May 3 by Bd. Local Improv. (E. J. Glackin, Secy.) to construct drains in portions of Constane and Long W. 100th and a number of other streets.

Bids desired until May 7 by Union Station Company, Chicago (Thos. Rodd, Ch. Engr.), for constructing trunk sewers in Canal, Clinton and Monroe Sts., concrete retaining walls and curb wall in Canal St. and curb walls in Monroe St., advertised in Engineering Record.

Milwaukee, Wis.—Bids desired until May 14 by Sewerage Comn. (J. H. Fowles, Secy.) for constructing intercepting sewers and connections on both sides of Milwaukee River, Contracts 9 and 10, advertised in Engineering Record.

Council Bluffs, Ia.—Local press reports state that bids are about to be called for by the Dept. of Pub. Wks. for the Miller Park sewer, to cost $50,000; also for extending the Saddle Creek sewer southwest of Harney St., to cost about $50,000.

Sioux City, Ia.—City Council reported to have decided to construct storm water sewer system in North Riverside; cost $12,000.

★**State Center, Ia.**—Contract awarded to Cole Bros., of Ames, at $19,943, for constructing a sanitary sewer system, consisting of approximately 3085 ft. 10-in. and 21,128 ft. 8-in. sewer; also a disposal plant, consisting of a reinforced tank of 50,000 gals. capacity and 2 sand filters. J. W. Sparks, Town Clk.

★**Waukon, Ia.** — Contract reported awarded to M. Tschirgi & Son, of Cedar Rapids, for constructing sewer system at $26,984.

Breckenridge, Minn.—City Clerk writes that plans being prepared by Engineer Baker, of Wahpeton, S. D., for a sewer system, to cost $18,000.

Fairmont, Minn.—Bids desired until May 6 by H. B. Tuttle, City Clk., to furnish material and construct about 24 blocks sewers. A. Marsden, Engr., Ames, Ia.

St. Paul, Minn.—City Council has passed ordinance providing for construction of the Fredericka-Fairmont sewer system; cost about $139,000.

Grand Island, Neb.—H. E. Clifford, City Clk., writes at recent city election the people voted in favor of obtaining plans, estimates, etc., and submitting a sewer and drainage bond proposition. No bonds have been voted yet.

Watertown, S. D.—It is reported that $88,000 will be spent for construction of sewers. Fred Shrieber, City Engr.

Ashdown, Ark.—Bids desired by J. M. Johnson, Secy. Sewer Dist., until May 6 for constructing sewer system of 40,000 ft. 8 to 15-in. vitr. pipe and sewage disposal plant. Engineers, Winters & Dove, of Ft. Smith.

Siloam Springs, Ark.—Bids desired until May 12 at office of R. J. Alfrey, Secy. Bd. of Improv., Sewer Dist. No. 1, to furnish material and construct a sanitary sewer system, to include 56,300 ft. 6 to 15-in. vitr. sewer pipe, 17,800 ft. trench, 0 to 4 ft. deep, 29,100 ft. 4 to 6 ft. deep, and 9800 ft. 6 to 16 ft. deep, 136 manholes, 12 flush tanks, 3000 cu. yd. rock excav. in trench, disposal plant complete, etc. Winters & Dove, Engrs., Ft. Smith.

Cleburne, Tex.—Bonds in the sum of $180,000 were sold on Apr. 15, to be used for constructing a sewer system.

Temple, Tex.—About $10,000 will be spent for extensions to sanitary sewers.

Limon, Colo.—Bids desired by Carl M. Cook, City Clk., until May 12, for constructing sewers from plans of Geo. H. Sethman, Equitable Bldg., Denver.

★**Spokane, Wash.**—Contract reported awarded to W. J. Hoy & Co., of Spokane, for constructing sewers in Sprague, 1st and Division Sts., at $25,500.

North Bend, Ore.—Plans reported approved by City Council for sewer system of vitr. pipe. Cost, $25,300.

Calistoga, Cal.—Lowest bid submitted by Bardwell & Dillerman, of Calistoga, at $14,200 for extension to sewer system.

Palo Alto, Cal.—See "Water Works."

Stockton, Cal.—Plans are to be prepared by H. T. Compton, City Engr., preparatory to calling an election on question of installing sanitary sewer system, including main sewers, outfall sewers and disposal works.

Salt Lake City, Utah.—Local press reports state that bids are desired by City Recorder until June 1 for the purchase of $100,000 bonds to be used chiefly for the sewer outlet to be built across western part of city.

London, Ont.—Bids desired until May 7 by H. A. Stevenson, Mayor and Chmn. Bd. Control, for constructing sewers as follows: Dundas East storm sewers and sanitary sewers, 700 lin. ft.; Price St. Sect., sanitary sewer, 1680 lin. ft.; Carling Creek West Sect., monolithic storm sewer, 2336 ft.; Carling Creek, East Sect., concrete pipe storm sewer, 8010 lin. ft. Chipman & Powers, Engrs., Mail Bldg., Toronto.

Toronto, Ont.—See "Hydraulic Construction and River Improvements."

BRIDGES.

Items Arranged Geographically

Lowell, Mass.—Stephen Kearney, City Engr., writes that it is proposed to construct a concrete bridge on concrete foundation at Pawtucket Falls, to have 2 spans 150 ft., and cost $80,000. All work done by city.

Buffalo, N. Y.—See "Railroads."

Schenectady, N. Y. — The Assembly passed bill providing for constructing bridge over Mohawk River and barge canal between Schenectady and Scotia.

Elizabeth, N. J.—Bids reported desired until May 5 by Co. Bd. Freeholders, for constructing a steel lift bridge over Elizabeth River, 60 ft. channel clearance and 80 ft. length of moving leaf bridge to have single leaf truss. Strauss Trunnion Bascule, Jacob L. Bauer, Co. Engr.

Easton, Pa.—Bids desired until May 14 by County Comrs. at Easton to construct a reinforced concrete bridge over Bushkill Creek near Altua. Geo. F. P. Young, Co. Controller.

Knowlton Bridge Co. incorporated to construct bridge over Delaware River at Easton.

Hollidaysburg, Pa.—Bids desired until May 7 by Co. Comrs. at Hollidaysburg for constructing 8 reinforced concrete bridges; also same time and place for cleaning and painting steel work, furnishing and erecting steel floor system and furnishing and laying creosoted block floor on bridge over Juniata River near P. R. R. roundhouse, length of span 126 ft., roadway 18 ft.; also painting and cleaning steel work below floor line and furnishing and laying creosoted plank floor on bridge over Little Juniata River at Shoenberger; length of span 120 ft., roadway, 14 ft. W. S. Hostler, Co. Clk.

★**Reading, Pa.**—Contract for constructing bridge over 6th St. awarded by Reading Ry. Co. to Seeds & Derham, Philadelphia, for substructure, and to McClintock-Marshall Co., Pittsburgh, for superstructure; total cost $20,000.

★**West Chester, Pa.**—Contract awarded Apr. 12 for constructing bridges as follows: To P. J. McCormick & Son, West Chester, for bridge at N. Oxford, $2,088; to Corcoran Constr. Co., West Chester, for bridges at Dowlins and Lyndell, $3,760; and to M. Kennawe for a bridge at St. Petero, $3,445. Isaac Y. Ash, County Controller.

Elkins, W. Va.—Bids desired until May 4 by County Court, at Elkins, for constructing following bridges: Mill Creek Bridge on Huttonsville and Helvetia Pike, near town of Mill Creek; bridge on Staunton and Parkersburg Turnpike; stone gutter bridge on Stanton and Parkersburg Turnpike; Kings Run Bridge, on Beverly and Fairmont Turnpike; Isners Run Bridge on Beverly and Fairmont Turnpike; Stalnakers Run Bridge on Buffalo Turnpike; Stone House Bridge over Cheat River near Stone House. Thaddeus Pritt, Clk. of Court.

Rome, Ga.—Bids desired until May 21 by County Bd. Comrs. Roads and Revenues (J. G. Pollock, Chmn.), Rome, for constructing bridges as follows: 2d Ave. Bridge, a reinforced concrete arch bridge, 40-ft. roadway, 2 8-ft. sidewalks, total length about 376 ft.; reinforced concrete arch bridge at Broad St., 40-ft. roadway, 2 8-ft. sidewalks, total length about 407 ft.; steel truss bridge on concrete substructure at 5th Ave., 36½-ft. roadway, 2 8-ft. sidewalks, total length about 367 ft. The bridge will have a movable channel span with a channel clearance of about 100 ft. After bidding on plans as above stated bidders may also submit alternate designs and specifications with their bids. Greiner & Whitman, Engrs., Fidelity Bldg., Baltimore, Md. Kieffer Lindsey, Co. Engr., Rome.

Sheridan, Ala.—Bids reported desired until May 4 by Marshall Z. Lowell, Clk. Bd. Superv., Auburn, for a reinforced concrete bridge over Bear River near Sheridan.

★**Akron, O.**—Contract awarded Apr. 19 for constructing bridge on Howard St. to W. J. Yockey, of S. Akron, at $5,143. L. C. Bower, Clk. Co. Comrs.

Akron, O.—See "Paving and Roadmaking."

★**Cleveland, O.**—Contract awarded by Bd. of Control to the C. A. White Co. for constructing culvert in Doan Brook for extension of Hough Ave., at $9,085.

Dayton, O.—About $15,000 is to be spent by county for repairs to county bridges.

★**Eaton, O.**—Contracts for constructing bridge over Twin Creek, Harrison Township, awarded by County Comrs. as follows: Substructure, to O. Nicholas, at $6,630, and superstructure, to Brookville Bridge Co., Brookville, at $6,630.

London, O.—Comrs. Madison County sold $21,450 bridge improvement bonds.

★**Illinois.**—Contracts awarded as follows by State Highway Dept., Springfield, for bridge work (bids opened Apr. 14):

★Massac County bridge, awarded to W. H. Hoffman, Lafayette, Ind., at $2,588.

★Johnson County bridge, awarded to Montgomery Parker Co., Rockport, Ind., at $2,353.

Eau Claire, Wis.—J. C. Fennessey, City Clk., writes it is proposed to construct a reinforced concrete bridge, 1 span, 54 ft.

North Platte, Neb.—Bids desired until May 21 by C. W. Yost, Co. Clk., Lincoln, for constructing a bridge across North Platte River about 2 miles east of North Platte. Bids to be submitted on low truss steel bridge, composed of 7 100-ft. spans, 20-ft. roadway, concrete floor, concrete piers and concrete abutments, resting on steel piles or a reinforced concrete bridge of balanced arch type, composed of two 60-ft., two 65-ft., two 70-ft., two 75-ft., and two 80-ft. arches, with 20-ft. roadway, 50-degree skew, with concrete piers and abutments resting on piles.

Grant City, Mo.—Bids reported desired May 4 by John Bunker, Co. Highway Engr., for 60 ft. riveted steel truss, also several smaller bridges.

★**St. Louis, Mo.**—Contract for concrete piling for eastern approach for free bridge awarded by Bd. Public Service to Chas. Lund., at $12,450.

Little Rock, Ark.—See "Paving and Roads."

Forney, Tex.—See "Paving and Roads."

Everett, Wash.—A. B. Dean, Deputy Co. Engr., writes all bids opened Apr. 12 for constructing concrete steel viaduct on Pacific Highway have been rejected. Lowest bidder: Bancroft & Morgan, Everett, at $2,691.

★**Hoquiam, Wash.**—Contract for alterations to 8th St. Bridge awarded by City Council to McCrary & Willard, Spokane, at about $6,852.

★**Olympia, Wash.**—Contract awarded Apr. 19 for constructing bridge over Perry Creek, pony truss concrete foundation, 3 80-ft. spans, width 20 ft., to Coast Bridge Co., Portland, at $8400. Next 3 lowest bids, Chas. G. Huber, Seattle, $8,996; Portland Bridge & Iron Co., Portland, $9,980; Weymouth Constr. Co., $10,200.

Seattle, Wash.—Two lowest bids opened by Bd. Public Works for constructing 8th Ave. S. and Duwamish Waterway Bridge submitted by J. A. McEachern Co., Colman Bldg., Seattle, at $24,206, and Sound Constr. Co., Lowman Bldg., Seattle, $26,860.

Tacoma, Wash.—Bids reported desired until May 8 by Co. Comrs. for constructing a pony truss bridge at South Prairie, estimated to cost $3,000. D. H. White, Co. Engr.

Lebanon, Ore.—A. M. Russell, Co. Clk., writes no bids have yet been asked for bridge to be constructed over Santian River. Cost reported to be about $16,000.

Martinez, Cal.—Plans for constructing steel bridge, 542 ft. long over Middle River have been approved by County Comrs.; cost $125,000.

Santa Ana, Cal.—Bids were opened Apr. 7 for constructing bridge over Coyote Creek as follows: C. McNeill, Santa Ana, $7,197, and J. Simon Fluor, Santa Ana, $7,345. W. B. Williams, Co. Clk.

Fredericton, N. B.—Bids reported desired until May 5 by Minister of Public Works, for bridge over Titea Gouche River at Brown's Dam Mill, 4 steel spans and 3 trestle tower piers and concrete abutments.

Ottawa, Ont.—Plans are about completed for Pretoria Ave. bridge and boring is now in progress. Bids will be called for early in May; estimated cost, $100,000.

Ottawa, Ont.—See "Paving and Roads."

PAVING AND ROADS.

Items Arranged Geographically

Massachusetts.—Bids were opened Apr. 20 by Massachusetts State Highway Comn. (F. I. Bieler, Secy.), 15 Ashburton Pl., Boston, for constructing following State highways:

★Amherst-Hadley, tar macadam, 11,000 ft., awarded to Lane Constr. Cor., Meriden, Conn., $12,465. Next lowest bids: Fred E. Ellis, Melrose, $12,607; R. F. Hudson, Melrose, $13,390.

★Raynham, tar, 800 ft., awarded to Snow & Farrington, Wrentham, at $11,068. Next 2 bids: A. M. Cusack, Boston, $11,428; H. L. Thomas, Middleboro, $11,325.

★Northbridge, concrete, 4400 ft., awarded to J. J. McCarthy Co., 115 Boston St., South Boston, at $11,692. Next 2 bidders: Alco Constr. Co., Boston, $12,167; E. R. Newall, Uxbridge, $12,439.

★Greenfield, asphalt and oil, 15,700 ft., awarded to R. F. Hudson, Melrose, $7,580. Next 2 bidders: Fred E. Ellis, Melrose, $7,902; Lane Constr. Cor., Meriden, Conn., $8,095.

★South Hadley, asphalt and tar, 9600 ft., awarded to Lane Constr. Cor., Meriden, Conn., at $23,350. Next 2 bidders: Middlesex Contr. Co., $26,760; D. O'Connell's Sons, $29,325.

Bernardston, 15,300 ft., bids taken under advisement. Low bidder, gravel construction, E. R. Newall, Uxbridge, at $9,834; low bidder, bituminous construction, D. T. Perry Sons, Brattleboro, Vermont, $11,098.

★Ashby, contract awarded on bids opened Apr. 13 for road construction at Ashby, by Highway Comn., to Alco Constr Co., Boston, at $10,180.

Massachusetts.—Bids desired May 4 by Massachusetts Highway Comn., 15 Ashburton Pl., Boston (Wm. D. Sohier, Chmn.), for constructing 5 sections of State Highway as follows:

Town of Shrewsbury, 10,100 ft. asphalt.
Deerfield, 6,500 ft. oil.
Methuen and Lawrence, 10,400 ft. asphalt.
Swampscott and Salem, 15,000 ft. tar and asphalt.
Brockton, Abington and Whitman, 10,900 ft. tar and asphalt.

★**Connecticut.**—Contracts have been awarded by State Highway Comr. Chas. J. Bennett, Hartford, on bids opened Apr. 19 as follows:

★Middletown, Haddam, New Britain, Bristol, Colton, Southbury and Danbury, inclusive, wood guard rail, to Webster & Webster, East Hartford, at $2,327.

★Old Lyme, native stone macadam on Beck Road, 8690 ft., to John Arbori, 172 Congress Ave., New Haven, at $13,345.

★Wethersfield, bituminous macadam on Hartford-Saybrook Road, 1013 ft. in length, to Leconardo Suzio, Meriden, at $7,594.

★Rock Hill, concrete on Hartford-Saybrook Road, 1225 ft. in length, to A. C. Sternberg, Jr., Constr. Co., West Hartford, at $9,712.

Hartford, Conn.—Bids desired until May 17 by Bd. Water Comrs. (Fred D. Berry, Secy.) for constructing a gravel surface road north of Nepaug Reservoir, Contract 8, in the town of New Hartford, advertised in Engineering Record.

Hartford, Conn.—Bids opened Apr. 13 by Bd. Contract and Supply for paving (a) Union Paving Co., Schenectady, N. Y., $36,317; (b) Edw. Balf Co., Hartford, $40,334:

	(a)	(b)
20,260 Sq. yd. sheet asphalt...	$0.87	$0.80
30 Cu. yd. extra binder....	10.66	8.00
3,300 Cu. yd. concrete foundation	4.10	4.75
4,870 Cu. yd. excavation.....	0.44	0.80
2,100 Sq. yd. sheet asphalt, repairs	1.07	1.60
10 Cu. yd. concrete foundation, repairs	5.10	5.50
No. of days figured at $10.....	40	90

Albany, N. Y.—Bids desired May 18 by State Comn. of Highways (Edwin Duffey, Comr.), Albany, for repairs of certain highways, advertised in Engineering Record.

Bids desired May 21 by State Highway Comn. (Edwin Duffey, Comr.) Albany, for improving highways in various counties, advertised in Engineering Record.

Albion, N. Y.—New Orleans County Bd. Supervs. voted to construct 2 county highways at cost of $144,200.

Brooklyn, N. Y.—Bids desired until May 5 by L. H. Pounds, Boro. Pres., for paving with asphalt portions of Argyle Rd., Belmont, Webster, 12th and 21st Aves., Lincoln Pl., President and Louisa Sts., in all 21,600 sq. yd. paving, etc.; grading, curbing and laying sidewalks on Newport St. and Saratoga Ave., 20,620 sq. ft. cement sidewalks, etc.

★**Buffalo, N. Y.**—Contracts for paving awarded as follows: German Rock Asphalt & Cement Co. D. S. Morgan Bldg., with asphalt Harvard Pl. $12,350, Henry P. Burgard Co., 1968 Fillmore Ave., with asphalt Burgard Pl. $9,115.

Cattaraugus, N. Y.—Citizens voted to pave with brick 2 streets; cost $19,500.

★**Gloversville, N. Y.**—Contract awarded Apr. 20 for paving Jay and W. 8th Sts. to J. P. Dugan & Co., Amsterdam, at $21,238, concrete and B. B. macadam to be used. Other bids: A. M. Banker, Gloversville, $26,553; Parkes-Hassam Paving Co., Worcester, Mass., $25,235; Schenectady Contr. Co., Schenectady, $28,478; A. L. Willey, Binghamton, $24,098. C. J. Mahoney, City Clk.

Long Island City, L. I., N. Y.—Bids desired until May 5 by Maurice E. Connolly, Pres. Queens Boro., for about 1500 tons asphaltic cement for the Bureau of Highways, paving with granite block on Sunswick St., 1750 sq. yd.; asphaltic block S. Washington Pl. and N. Henry St., 3100 sq. yd.; sheet asphalt, 11th Ave., 1800 sq. yd.; security in all, $9,900; also for 34,200 sq. ft. flagstone sidewalk in Van Dam St., First Ward; security, $20,000.

New York, N. Y.—Bids desired until May 6 by Douglas Mathewson, Pres. Boro. Bronx, for paving with bituminous concrete E. 174th St., 3575 sq. yd. pavement, etc.; repaving with concrete and sheet asphalt, sidewalks and roadway of bridge over tracks of N. Y. C. & H. R. R. R. at E. 153d St. and Sheridan Ave., 1360 sq. yd. sheet asphalt pavement and 8040 sq. ft. concrete sidewalk; paving with asphalt blocks E. 167th St., 1340 sq. yd. pavement, etc.; flagging sidewalks, paving with granite blocks, E. 151st St., 6050 sq. yd. pavement, etc.; flagging sidewalks, etc., on Overing St., 15,840 sq. ft. concrete sidewalk, etc.

★Items marked thus give the names of parties awarded contracts.

Niagara Falls, N. Y.—Bd. Public Wks. contemplates spending about $200,000 on street pavements.

Local press reports state bids desired by Clerk. Bd. Pub. Wks. until May 4 for paving Whitney Ave. and Main St.; total cost of $51,500.

★**North Tonawanda, N. Y.**—Contract for paving with concrete Robinson St. and Rumbold Ave. awarded by Bd. Pub. Wks. to Louis H. Gipp, Buffalo, at $39,289.

★**Port Jervis, N. Y.**—Contract has been awarded Apr. 22 for about 6900 sq. yd. brick paving on Jersey Ave., including curbing, etc., to Port Jervis Constr. Co., of Port Jervis, at $18,126. John F. Cleary, City Clk.

Rochester, N. Y.—Following are bids opened by County Bd. Supervs. for paving 2½ miles of East Side Boule.—(a) bitulithic, (b) amiesite, (c) California asphalt: Whitmore, Rauber & Vicinus, 279 South Ave., (a) $51,795, (c) $35,558; Warren Bros. Co., Rochester, (a) $56,164; Schroeder-Hicks Constr. Co., (a) $55,879; Bison City Engineering & Constr. Co., (b) $36,399; A. J. Rockwood, (b) $38,442; Ribstein-Holter Co., (c) $37,932; Bishop Constr. Co., (c) $40,966; Julius Frederichs Co., (c) $40,510.

Warsaw, N. Y.—Lowest bid opened for constructing Warsaw-Pavilion highway submitted by John Johnson Constr. Co., Buffalo, at $40,083.

★**Yonkers, N. Y.**—Contract for paving with asphalt block on Yonkers Ave. awarded by Bd. Contract and Supply to J. B. Pennell & Co., Yonkers, at $130,329.

Bayonne, N. J.—No contracts were let on bids opened Apr. 6 by Council for furnishing material and repaving with asphalt on old macadam pavt. 34th, 36th and 54th Sts., about 20,980 sq. yd. paving; improving 5th and 8th Sts. and Humphreys Ave. with bituminous concrete, 17,800 sq. yd.; sheet asphalt, 14th, Orient, 20th, 38th, 47th, 51st, 15th, 53rd, 12th, Linnet, 50th, 41st and George Sts., Ave. A, Lord and Hobart Aves., 93,900 sq. yd.; reimprovement of 16th and 32d Sts. and Ave. E with sheet asphalt, about 14,900 sq. yd. No date yet set for receiving new bids. S. J. Harwi, City Surveyor.

★**Belvidere, N. J.**—Contracts for constructing waterbound macadam roads awarded by Bd. Chosen Freeholders as follows: Danville-Butzville Rd., 5¾ miles, to Smiah Bros., Hackettstown, at $56,011, and for Bloomsbury-Still Valley Rd., 2.9 miles, to E. P. Arbogast, Stroudsburg, Pa., at $43,130.

Freehold, N. J.—Bids desired until May 5 by Co. Bd. Chosen Freeholders, Freehold (A. E. Close, Clk.) to furnish material and construct Riverside Drive and 3d Sect. of Marlboro-Vanderburgh Rd. Geo. D. Cooper, Co. Engr., 60 Bank St., Red Bank.

Hackensack, N. J.—Bids desired until May 28 by Road Com., County Bd. Chosen Freeholders, for improving Teaneck Rd., Schraalenburgh Rd., Washington, Lafayette and Forest Aves.

Newark, N. J.—Bids were opened Apr. 22 by Bd. Street and Water Comrs. for paving as follows:

Chester Ave., paving from 5th St. to City Line. Lowest bidder: Ralph Sangiovanni, 80 Hoyt St., 9400 sq. yds. bitulithic on 6-in. concrete, $2.23; 25 lin. ft. new 20 x 4-in. bluestone curb, in concrete, 75 cts.; 1800 lin. ft. old curb, four cut and reset, in concrete, 33 cts.; 1 basin complete, $110; total $21,685. Next 2 lowest bids: Northern Constr. Co., $21,806; Standard Bitulithic Co., $21,905.

Hunterdon St., from Renner Ave. to Lyons Ave. Lowest bidder: Jackson Contr. Co., 4700 sq. yds. bitulithic on 6-in. concrete, $2.26; 2900 lin. ft., 16 x 5-in., four cut bluestone curb, set in concrete, 80 cts.; 25 lin. ft. old curb, reset in concrete, 30 cts.; 1 basin complete, $100; maintenance, 3 cts.; total $13,049.

Elm Road, from Tyler St. to Gotthardt St. Lowest bidder Ralph Sangiovanni, 5500 sq. yds. bitulithic, on 6-in. concrete, $2.21; 2300 lin. ft., 16 x 5-in., bluestone curb, set in concrete, 76 cts.; 50 ft. bluestone corners, 10 ft. radius, 85 cts.; 50 ft. bluestone corners, 12 ft. radius, 85 cts.; 25 ft. old curb, reset in concrete, 30 cts.; 8 new basins complete, $105; maintenance per cu. yd., 6½ cts.; total $14,835.

Paterson, N. J.—Bids desired until May 4 by Bd. Pub. Wks. for paving Jefferson St. between N. 3d St. and Garfield Ave., and macadamizing Railway Ave., from Madison Ave. to Illinois Ave., and constructing an overflow sewer in Pine St. at Oliver St. H. J. Harder, City Engr.

Trenton, N. J.—Bids reported desired until May 4 by Bd. Freeholders, for bituminous concrete on Brunswick Pike. Theo. Tobish, Co. Engr.

Harrisburg, Pa.—The State Senate passed bill appropriating $8,500,000 to Highway Dept. for maintenance of highways, purchase of turnpikes and construction of state aid roads.

Milton, Pa.—About $50,000 is to be spent on paving N. Front St.

Philadelphia, Pa.—Bids desired until May 3 by Dept. Docks and Wharves (Geo. W. Norris, Dir.) for paving at Southwark Piers, Delaware River, between Catharine and Christian Sts.

★**Pittsburgh, Pa.**—Contracts awarded by County Comrs. as follows: 250,000 gal. asphalt for seal coat to United States Refining Co., at 5.95 cts. per gal. and to Atlantic Refining Co., at 6.1 cts. per gal., for 150,000 gal. asphalt road oil to Atlantic Refining Co., at 3.54 cts. per gal.; one 10-ton road roller, to Buffalo Steam Road Machine Co., $1,465.

★Contract awarded Apr. 23 by County Comrs. for creosoted wood block floors on numerous county bridges to Farris Eng. Co., Jenkins Arcade, Pittsburgh, at $12,750. Hyath M. Cribbs, Co. Controller.

★Contract reported awarded by Public Works Dept. for raising Penn Ave. and Duquesne Way from Point to 11th st. and intersecting streets above flood line to M. O'Herron & Co., at $152,848.

Sharon Hill, Pa.—Lowest bid opened for resurfacing streets and applying oil submitted by Mainwaring & Cummins, at $18,000.

Baltimore, Md.—Local press reports state bids desired until May 5 by Bd. of Awards, care of City Controller, for paving with sheet asphalt portions of Hull, Covington, Haubert, Cross and Beason Sts.

Cambridge, Md.—Bids desired until May 11 by County Comrs., Cambridge (R. H. Dixon, Jr., Roads Engr.), to construct a section of State Aid Highway along Nanticoke River Rd., between Vienna and Hollands cross roads, a distance of about 2 miles, of 9-ft. shell macadam.

Easton, Md.—All bids opened Apr. 13 by County Comrs., Easton (Jos. B. Harrington, Clk.), for constructing a section of State Aid highway in Talbot County along Tunis Mills Rd., about 1.57 miles, have been rejected, and the work will be done by the County force account. Frank W. Seth, County Road Engr.

★**Maryland.**—Contract awarded Apr. 13, by State Road Comn. Garrett Bldg., Baltimore (Wm. L. Marcy, Secy.) for constructing State Highway as follows:

★B C—3A—Baltimore City, section of Frederick Ave. over Gwynn's Falls bridge about .24 miles in length (viti brick paving) awarded to American Paving & Constr. Co., Monteballo Ave., Baltimore, $15,629.

★Contr. No. 0162B—Garrett County a section of road from Thayersville toward McHenry, about 3.73 miles in length (resurfacing) awarded to H. W. Kaylor, Hagerstown, at $7,450.

★Contr. No. AB8—Baltimore City, section of Maryland Ave. Russell, Bush and Ridgeley Sts. about .83 miles in length (brick, sheet asphalt and granite block) awarded to American Paving & Constr. Co., Monteballo Ave., Baltimore, $37,522.

Cecil County Contr. No. C. E. 18 (opened Apr. 13) postponed indefinitely.

Salisbury, Md.—Bids desired until May 7 by County Comrs., at Salisbury, to construct 2 sections of State aid highway, the Salisbury-Mt. Hermon Rd., 2.61 miles and Riverside Rd., about 1½ miles.

Wilmington, Del.—See "Sewerage and Sewage Disposal."

Washington, D. C.—Bids desired until May 10 by Comrs., D. C. (Oliver P. Newman, Chmn.), for furnishing and delivering during fiscal year beginning July 1, 1916, and ending June 30, 1916, the following material: Asphalt paving block, repressed vitr. paving blocks and sewer invert bricks, castings, asphalt paving cement, Portland cement, granite curbing, road oils and tars, terra cotta sewer pipe, red sewer bricks, etc.

Bids desired May 21 by Commissioners D. C., Washington, D. C., for laying asphalt block pavement in Dist. of Columbia; also for paving various streets and avenues with sheet asphalt, both proposals advertised in Engineering Record.

★**Vienna, Va.**—Contract for constructing road from Tysons Corner to West Falls Church awarded by Bd. Supervs., at Fairfax, to L. M. Johnson, at $52,822.

★**Wytheville, Va.**—Contract for constructing macadam road from Porters Cross Roads to Mill Creek awarded by Supervs. Wythe County and State Engineer to J. Kent Warden, Pulaski, at $16,447.

Anderson, S. C.—Bids desired until May 11 by Bd. Paving Comn. for street paving, approximately 75,000 sq. yds., advertised in Engineering Record. W. A. Sanders, City Engr.

Charleston, S. C.—Bids desired by J. H. Dingle, City, Engr., until May 18 for 65,000 sq. yd. of paving on concrete base, of which it is estimated that 20,000 sq. yd. to 25,000 sq. yd. will be creosoted wood block and the remainder sheet asphalt, asphaltic or bituminous concrete or bithulithic (advertised in Engineering Record).

Greenville, S. C.—Citizens voted Apr. 20 to issue $100,000 bonds for street improvements. C. P. Ballinger, City Engr.; J. B. Marshall, Mayor.

★**Atlanta, Ga.**—Contract for furnishing road oil and machinery to county for road improvements current year awarded by Pub. Wks. Com. Fulton County Comrs., to S. E. Finley, at $15,000.

West Palm Beach, Fla.—Bids reported desired May 7 by A. N. Lopez, City Clk., for street paving, sanitary sewers and sea wall, including 40,000 sq. yds. macadam, 29,900 sq. yds. block surfacing, 5,544 cu. yds. drainage. J. B. McCrary Co., Engrs., Atlanta, Ga.

★**Alabama.**—Coosa County, Rockford, contract for State Aid Road in Coosa County awarded by State Highway Comrs. at Montgomery to Nixon Smith Constr Co., for grading, draining and surfacing with top soil about 2½ miles of the Rockford and Kellerton Road, at $4,616.

Linden, Ala.—Bids reported desired until May 11 by Co. Comrs. for grading, draining and surfacing with gravel section of a road to cost $4,600. W. S. Keller, State Highway Engr., Montgomery.

Trenton, Ala.—Contract is about to be let for constructing road from Tennessee State Line through Lookout Valley to Alabama State Line. About $60,000 bonds have been sold by County Comrs. at Scottsboro.

Tuscumbia, Ala.—City Council voted to pave with asphalt business section of city; cost $35,000.

Baton Rouge, La.—Bids desired until May 15 by the Commission Council for laying approximately 170,000 sq. yd. bituminous gravel pavement with concrete curb and gutter, sub-surface drainage, etc.; also 22,000 sq. yd. hard surface pavement on concrete base. John J. Mundinger, City Engr.

Franklin, La.—Citizens voted to issue $200,000 bonds for constructing road through St. Mary Parish.

Bids reported desired until May 17 by Chas. N. Frost, Chmn. Police Jury and Road Comn., Franklin, for constructing about 50 miles of gravel or shell and gravel surface highway. Walter Y. Kemper, of Franklin, and Warren B. Reed, Morgan City, Consulting Engrs.

Hazlehurst, Miss.—Bids reported desired June 7 by Copiah County Dist. No. 5, Road Comrs. (J. M. Dampeer, of Crystal Springs, Pres.) for constructing gravel roads; about $150,000 available. Xavier A. Kramer, Engr., Magnolia.

Elizabethton, Tenn. — Carter County contemplates spending $350,000 for road improvements.

Jackson, Tenn.—Bids desired until May 4 by W. F. Alexander, City Clk., for paving with vitr. brick, creosoted wood, bitulithic, sheet asphalt and asphaltic concrete, advertised in Engineering Record.. Approximately 35,000 sq. yds.

★**Knoxville, Tenn.**—Contract for paving with asphalt Vine Ave. awarded by City Commission to Murray Constr. Co., Knoxville, at $13,012.

Barbourville, Ky.—Press reports state bids desired until May 7 by County Judge Thos. G. Hammons for $200,000 road construction bonds.

Elyria, O.—Bids desired by Clerk Bd. of Public Service, May 11, for a 40-ft. brick pavement about 9650 sq. yds. and 4550 ft. curb. C. M. Theobalt, City Engr.

Bowling Green, O.—Bids reported desired until May 11 by C. E. Stinebaugh, Co. Aud., for broken stone and screenings for road repairs.

Cleveland, O.—Bids desired until May 5 by A. R. Callow, Comr. Purchases and Supplies, for paving W. 76th, E. 65th and E. 138th Sts.

Columbus, O.—Bids desired until May 18 by Bd. Trus., Ohio State Univ., to furnish material and construct approximately 6000 sq. yds. asphaltic macadam roadway.

Columbus, O.—See "Public Buildings."

★**Coshocton, O.**—Contracts awarded by Bd. Pub. Service, Apr. 15, for brick pavement as follows: To G. J. Bock & Son, Coshocton, for paving 3d and 5th Sts., $10,490, and to Rosser, Harper & Stuart, of Bremen, for E. Main St., $8,587. A. M. Fisher, City Engr.

Kenton, O.—Bids reported desired May 7 by County Auditor for 3 miles of waterbound macadam.

Mansfield, O.—Bids desired until May 20 by County Comrs. at Mansfield for constructing, repairing and improving the road known as part of the State Rd., about 5 miles, in Jackson and Cass Townships. C. L. Bushey, Co. Surveyor.

★**Marion, O.** —Contracts for paving awarded by Bd. Control as follows: N. Main St., with Metropolitan block, to P. Drake & Sons, Marion, at $23,197, and Windsor St., with asphalt block, to Asphalt Block Paving Co., Toledo, at $11,572.

Marysville, O.—Bids desired until May 10 by Chas. A. Morelock, Co. Aud., for $31,000 road improvement bonds.

Norwood, O.—Bids desired until May 10 by Director Pub. Service (H. D. Armstrong, Clk.) to furnish material and improve a portion of Baker Ave. by paving roadway with bituminous macadam, constructing concrete curbs and gutters, sanitary sewer, etc.

Ohio.—Following are lowest bids opened Apr. 2 by State Highway Dept., Columbus, for state road work, to include bridges and culverts, grading roadway and paving. (Cinton Cowen, State Highway Comr.):

★Allen County, Sect. G of Lima-Ottawa Road, German and Bath Townships, brick paving, length 2506 ft., width 18 ft.: Michael O'Brien, Lima, $10,440 (awarded contract); Henry S. Enck, Lima, $10,885; Zopher Blodgett, Lima, $10,999; John A. Westrick, Holgate, $11,336.

★Champaign County, Sect. K of Troy-Urbana-Southern Road, Concord Township, paving with concrete, length 5280 ft., width 14 ft.: Korah E. Kunkle, Dayton, $10,443 (awarded contract); Toy & Mulligan, Lima, $10,500; J. F. Perry, Chillicothe, $10,525; Trippeer & Son, Peru, Ind., $10,700.

★Clark County, Sect. H of Springfield-Washington C. H. Road, Harmony Township, paving with waterbound macadam, length 15,158 ft., width 26 ft.; Robins & McDaniel, Dayton, $23,966 (awarded contract); Scott & Walker, Cincinnati, $24,-550; Ohio Valley Constr. Co., Hamilton, $25,000; Ironton Transfer & Storage Co., Ironton, $25,300.

★Erie County, Sect. L of Cleveland-Sandusky Road, Berlin, Huron and Perkins Townships, paving with concrete, length 24,099 ft., width 16 ft.: Fred R. Jones Co., P. O. Box 110, Cleveland, $70,-107 (awarded contract); McGarry & Sparks, Xenia, $70,800; Ohio Valley Constr. Co., Cincinnati, $71,000; Public Constr. Co., Elyria, $73,200.

★Fayette County, Sect. G of Springfield-Washington C. H. Road, Union Township, paving with brick, length 823 ft., width 16 ft., awarded to J. A. Van Gundy, Washington, C. H. O., at $2,847.

★Hancock County, Sect. E of Lima-Sandusky Road, Union Township, paving with waterbound macadam, length 5400 ft., width 16 ft.: Sousely & Britton, Ada, $7,874 (awarded contract); Sousley & Botkins, Ada, $7,978; Richard H. Schafer, Findlay, $7,990; C. L. Biggs, Findlay, $8,200.

★Huron County, Sect. K of Plymouth-Norwalk Road, Norwalk and Ridgefield Townships, paving with concrete, length 5630 ft., width 10 ft.: Croghan Constr. Co., Fremont, $12,400 (awarded contract); Elyria Constr. Co., Elyria, $11,900; Public Constr. Co., Elyria, $11,400; C. E. Wilson & Sons, Barnesville, $11,290.

★Lake County, Sect. H of Cleveland-Buffalo Road, Mentor and Willoughby Townships, paving with brick, length 24,-759 ft., width 18 ft., awarded to E. A. Freshwater & Sons, Chester, W. Va., at $117,990.

★Montgomery County, Sect. I of Dayton-Troy Road, Harrison Township, paving with brick, length 7834 ft., width 15 ft.: Elsworth Brentlinger, Dayton, $28,882 (awarded Contract); McGerry & Sparks, Xenia, $29,110; Yount & Jackson Co., Dayton, $29,526; Toy & Mulligan, Lima, $29,995.

★Paulding County, Sect. E of Defiance-Delphos Road, Brown Township, paving with waterbound macadam, length 5296 ft., width 14 and 16 ft.: Erie Stone Co., Van Wert, $8,929 (awarded contract); R. C. Roach, Waterville, $9,500; Rohrer & Williams, Ft. Wayne, Ind., $9,994; Mustard Bros., Ada, $10,198.

★Paulding County, Sect. D of Continental-Paulding Road, paving with waterbound macadam, ength 5412 ft., width 14 ft.: R. C. Roach, Waterville, $6,900 (awarded contract); Rohrer & Williams, Ft. Wayne, $7,400; Erie Stone Co., Van Wert, $7,459; Mustard Bros., Ada, $7,495.

★Sandusky County, Sect. F of Fremont-Castalia Road, Riley and Townsend Townships, paving with waterbound macadam, length 10,551 ft., width 16 ft.; Modern Constr. Co., Fremont, $16,400 (awarded contract); Rolla M. Myers, Attica, $17,298; Barnes & Almendinger, Rocky Ridge, $17,521; Swint Bros. Stone Co., Fremont, $17,654.

★Shelby County, Sect. B of Piqua-Sidney Road, Clinton and Sidney Townships, paving with waterbound macadam, length 9393 ft., width 26 ft.: Hamilton & Bunger, Eldorado, $16,997 (awarded contract); Ironton Transfer & Storage Co., Ironton, $17,000; Korah E. Kunkle, Dayton, $17,243; Ohio Marble Co., Piqua, $17,271.

★Tuscarawas County, Sect. K of Wooster-Canal Dover Road, Franklin Township, paving with brick, length 6310 ft., width 15 ft.: Holmes Constr. Co., Millersburg, $20,800; Brode Co., Newcomerstown, $20,892; McElfresh, Danford & Glover, Caldwell, $21,066; T. J. Norman & Son, Coshocton, $21,250.

★Tuscarawas County, Sect. 1 of New Comerstown - Urichsville Road, Clay Township, paving with brick, length 5280 ft., width 15 ft.: Yount & Jackson Co., Dayton, $18,979 (awarded contract); W. M. Brode Co., Newcomerstown, $18,988; Lee, Griggs & Anderson, Millersburg, $20,400; McElfresh, Dansfer & Glover, Caldwel, $20,576.

★Tuscarawas County, Sect. J of New Philadelphia.—West Larayette Road, York Township, paving with brick, length 10,560 ft., width 14 ft.: Springer & Rogers, New Philadelphia, $32,433; C. E. Wilson & Sons, Barnesville, $32,435; W. M. Brode Co., Newcomerstown, $32,-841; Holmes Constr. Co., Millersburg, $33,191.

★Warren County, Sect B of Cincinnati.—Chillicothe Road, Harlan Township, paving with waterbound macadam, length 11,370 ft., width 14 ft.: Ironton Transfer & Storage Co., Ironton, $16,500 (awarded contract); Arp-Simpson Co., Middletown, $16,986; Van Camp Bros., Norwood, $17,529.

★Williams County, Sect. J of Bryan.—

★Items marked thus give the names of parties awarded contracts.

Pioneer Road, Madison Township, paving with waterbound macadam and concrete, length 5,433 ft., width 14 ft.: Kelly Constr. Co., Bryan, $9,395 (awarded contract); Rolla Myers, Attica, $9,848.

★Franklin County, Bureau Maintenance and Repair.—Contract awarded to W. O. Jewett, Worthington, at $18,990, for grading shoulders and ditches; constructing waterbound gravel side drive, 8 ft. wide, length 39,200 ft.; constructing waterbound macadam, 16 ft. wide, length 573 ft.; surfacing with tar and screenings, 16 ft. wide, length 16,473 ft.; surface treating with screenings 16 ft. wide, length 22,727 ft., and making other repairs, a section of the National Road (West), Franklin and Prairie Townships, Franklin County, total length of road 40,700 ft.

★Richland County. Paving roadway with concrete Sect. L of Mansfield-Galion Road, Madison Township, length 3,883 ft., width 20 ft.: F. L. Rice & Son, Shelby, $13,323 (awarded contract); Gandert & Sons, Mansfield, $13,450; C. E. Wilson & Son, Barnesville, $13,680; Huber & Stayton, Eaton, $13,900.

Shawnee, O.—H. L. Maddocks, 401 Trust Bldg., Newark, has been retained to prepare plans and specifications and supervise construction of street improvement for Shawnee. M. W. Bardshaw, Mayor.

★**Toledo, O.**—Contract for paving Norwood Ave. awarded by Bd. Control to Harris & Tansey, Toledo, at $10,559.

Urbana, O.—Lowest bid opened by Bd. Control for paving with sheet asphalt on Scioto St. submitted by Johnson Constr. Co., Chicago, Ill., at $22,833.

Youngstown, O.—Bids desired until May 3 by Comrs. of Road Dist. No. 1 (Frank Agnew, Secy.) to construct a waterbound slag macadam road, 5045 ft. in length, known as Titusville Rd. Sect. 2.

Columbia City, Ind.—E. E. Erdmann, City Clk., writes no bids were opened Apr. 26 for paving alleys, about 9000 sq. yd. brick or concrete, and the paving work has been postponed for about a year.

Elkhart, Ind.—Bd. Works voted to pave 3d, Jefferson, Sherman, 5th Sts., Indiana Ave.

★**Frankfort, Ind.**—Contract awarded Apr. 1 for paving E. Boone St. to N. L. Brant & Co., Frankfort, at $7,265.

Bids on W. Jefferson St. have been rejected and new bids desired until 10.30 A.M., May 3; this work includes 9100 sq. yd. roadway paving, 30,270 sq. ft. sidewalk, 5400 ft. curb, 1200 ft. sewer; estimated cost, $24,265.

Indianapolis, Ind.—Bd. Pub. Wks. voted to pave New York St.; cost about $26,632.

Bd. Wks. voted to pave Graceland Ave.; cost $23,967.

★Contract for paving with concrete 17th Ave. awarded by Bd. County Comrs. to Wm. Coin, Frankfort, at $15,543.

★**Vincennes, Ind.**—Contracts for paving awarded by Bd. Pub. Wks. as follows: Shelby St. to Premier Constr. Co., Indianapolis, at $12,910 5th and 6th Sts. to Western Constr. Co., Lafayette, at $95,292.

Crystal Falls, Mich.—Contracts awarded by County Road Comrs. for road contracts as follows (A. L. Burridge, Co. Road Engr.):

★Mansfield-Sagola Road, Contract 25, for 3½ miles of top course macadam, awarded to Smith, Byers & Sparks Co., Houghton, at $2.06 per cu. yd.

★Crystal Falls-Amasa Road, Contract 29, for grading 2.8 miles was awarded to D. F. Boyle & Co., Crystal Falls, as follows: earth excav., 34 cts. per cu. yd.; loose rock excav., 60 cts. per cu. yd.; solid rock excav., $1.25 per cu. yd.; grubbing, 50 cts. per sq. yd.; clearing, $45 per acre.

★Mansfield-Sagola Road, Contract 26, for grading 2 miles of road, was awarded to O. T. Olson and Frank Johnson, Crystal Falls, as follows: Clearing, $20 per acre; grubbing, 38 cts. per sq. yd.; earth excav., 25 cts. per cu. yd.; loose rock excav., 30 cts. per cu. yd.; solid rock excav., 50 cts. per cu. yd.

★Alpha-Mastodon Road, Contract 28, grading 3 miles of road, awarded to J. E. Blomgren, Norway, as follows: Clearing, $40 per acre; grubbing, 30 cts. per square; earth excav., 27 cts per cu. yd.; loose rock excav., 50 cts. per cu. yd.; solid rock excav., $1.75 per cu. yd.

★Crystal Falls-Alpha Road, Contract 27, top course macadam for 2 miles of road, awarded to Herman Holmes, Crystal Falls, at $2.25 per cu. yd.

Chicago, Ill.—Bids desired until May 3 by Bd. Local Improv. (Edw. J. Glackin, Secy.) for improving portions of Addison, E. 67th and E. 69th Sts., Baltimore, S. Kenneth and Brainard Ave., several alleys and a number of other streets. Bids desired for repressed vitr. brick, asphalt, etc.

Bids desired until May 6 by Bd. Local Improv. (E. J. Glackin, Secy.) to construct 6-ft. cement sidewalks on portions of Fullerton, S. Maplewood, Exchange and N. 46th Aves., W. 47th, W. 69th and a number of other streets.

★**Decatur, Ill.**—Contract for paving N. and S. Water Sts. and E. William St. awarded by Bd. Local Improvements to S. A. Tuttle, Decatur, at $93,562.

Rockford, Ill.—Citizens voted bonds for constructing bridges as follows $85,000 for Morgan St. Bridge, $4,500 for 11th St. Bridge, $15,000 for bridge at Kishwaukee St. and $4,000 for bridge at 10th St.

★**Eau Claire, Wis.**—Contract for paving with concrete Summit, Park Aves. and S. Barstow and Washington Sts. awarded by City Council to Cast Stone Constr. Co., Eau Claire, at $12,569.

★**Milwaukee, Wis.**—Contracts for paving 49th 52d Sts., 25th Ave., etc., awarded by City Commission to Badger Constr. Co., Railway Exchange Bldg., 4 streets, at $33,758; to White Constr. Co., Railway Exchange Bldg., 3 streets, at $37,559, and to S. P. Coughlin, 1 street, at $25,427.

Sheboygan, Wis.—Bids reported desired May 4 by Bd. Works, for about 60,000 sq. yds. reinforced concrete pavement on various streets.

★**West Bend, Wis.**—Contract awarded Apr. 22 for cement concrete pavements on Main St. to Ferd Eul, of Menasha, at $22,081. Next 3 lowest bids: Franz Radloff, Plymouth, $23,582; Garvey & Weinberg, Kaukauna, $23,957; Murphy Constr. Co., Manitowoc, $24,016. Jos. M. O'Meara, Chmn. Bd. Pub. Wks.

Wisconsin.—Plans and specifications are being prepared under the State aid law for improvement of following streets (A. R. Hirst, State Highway Engineer, Madison):

Almond, Portage County, excav., 813 cu. yd.; reinforced concrete pavt., 2138 sq. yd.; plain concrete pavt., 2667 sq. yd.; curb and gutter, 700 lin. ft.; estimate, about $5,000.

Amherst, Portage County, excav., 2088 cu. yd.; reinforced concrete pavt., 4522 sq. yd.; plain concrete pavt., 1778 sq. yd.; curb and gutter, 524 lin. ft.; 18-in. gutter, 695 lin. ft.; estimate, about $6,300.

On above work county is to furnish all cement; bids will be called for on or about May 10. Address Thos. E. Cauley, Highway Comr. of Portage County, at Stevens Point.

Burlington, Ia.—Bids desired until May 3 by City Council to grade, curb and pave with cement concrete. Gunnison and South Sts. and an alley.

Corydon, Ia.—Citizens voted to construct 3 miles pavements.

★**Davenport, Ia.**—Contract for paving was awarded Apr. 21, as follows: To McCarthy Improv. Co., Davenport, for 2477 sq. yds. asphalt at $1.93; 6381 sq. yds. asphalt concrete at $1.69; and 10,000 sq. yds. brick at $1.79; and for 8000 sq. yds. concrete to J. McCarthy of Davenport, at 93 cts. Allen B. Boudinot. City Engr.

About 20,000 yds. brick and asphalt will be let on May 4th, by Bd. Pub. Wks.

Eldora, Ia.—Bids desired until 12 o'clock noon, May 4, for 12¾ miles permanent road grading, approximately 63,200 cu. yds. For further information address E. W. Dunn, Co. Engr.

Forest City, Ia.—Bids desired until May 12 by G. B. Chryst, Town Clk., for paving portions of Clark, I, J, K, L and 6th Sts., in all about 32,778 sq. yds. pavement, 22,000 lin. ft. curb and gutter, 3000 lin. ft. storm sewer, etc. Bids desired on Portland concrete, asphaltic concrete, No. 1, vitr. paving brick block, vertical fiber paving or block pavement.

Brainerd, Minn.—Bids reported desired until May 4 by C. W. Mahlum, Co. Aud., for redecking with creosoted blocks Laurel St. Bridge over Mississippi River.

St. Paul, Minn.—The City Council on Apr. 23 rejected all bids opened for paving Marshall Ave.

★**Neodesha, Kan.** — Contract awarded Apr. 23 for paving to A. W. Van Haffton, Joplin, O., at following bid: 5865.5 cu. yds. earth excav., 36 cts.; 14,678.7 sq. yds. brick pav., 5-in. rock foundation, asphalt filler, $1.47; 9028 lin. ft. curb and gutter, 44.5 cts.; 952.5 lin. ft. concrete header, 27 cts.; 346 lin. ft. concrete gutter, 27 cts.; total $28,024. Totals of other bids: Green & Cullen, Independence, $28,221; Williams Contr. Co., Joplin, Mo., $30,011; Willeston Contr. Co., Chicago, Ill., $29,775; Edwin Geiger, Leavenworth, $29,715.

★**Salina, Kan.** — Contracts have been awarded by City Council to Watts & Amerman for following paving: 30,000 sq. yd. 3-in. fiber brick paving on 5-in. concrete base at $1.69 per sq. yd.; 3000 sq. yd. asphaltic concrete, 2 in. thick on 5-in. concrete base, at $1.30 per sq. yd.; 20,000 lin. ft. cement curb and gutter at 52 cts. per lin. ft.; excav. and grading, 33 cts. per cu. yd. P. G. Wakenhut, City Engr.

Topeka, Kan.—Bd. County Comrs. voted to pave with brick 17th St. between Washburn College and Mt. Hope Cemetery, cost about $27,000.

Lincoln, Neb.—The State Legislature passed bill providing for appropriation of $35,000 for state's share for connecting pavements between Lincoln and University Pl.

★**Fargo, N. D.**—F. L. Anders, City Engineer, writes contract for paving on bids opened April 8, awarded as follows:

★2d Ave. from 13th St. S. awarded to Jas. Kennedy at $7,880 using concrete about 3054 sq. yds.

★6th St. S. from Front St. awarded to Jas. Kennedy at $7,059 to include 2043 sq. yds. brick paving.

★Broadway from N. P. Ry. to G. N. Ry. awarded to Jas. Kennedy, at $27,087 to include 12,126 sq. yds. brick paving.

★3rd St. from N. P. Ave. awarded to O. Birch & Sons, of Fargo, using bitulithic as follows

3,800 cu. yds. excav.	$0.40
Fill per cu. yd.	.40
10,330 cu. yds. sub-foundation	.04
Catch basins, ea.	50.00
250 lin. ft. 6-in. tile	.25
10 new inlets, ea.	12.00
New castings, per lb.	.03
14 castings to grade, ea.	2.00
3,514 lin. ft. street curb without	.48
3,514 lin. ft. street curb with	.60
87 lin. ft. curve curb	.62
789 lin. ft. concrete cutter	1.87
Headers	26.16
Steel, per lb.	.03
214 alley returns	1.90
9,326 sq. yds. bitulithic	2.03
Total	$26,833

★Roberts St. from 3d Ave. N. awarded to Jas. Kennedy, at following bid, using concrete:

7,100 cu. yds. excav.	$0.30
Fill, per cu. yd.	.50
17,283 cu. yds. sub-foundation	.06
15 catch basins, ea.	45.00
1,770 ft. 6-in. tile	.50
1 new manhole	70.00
59 new inlets, ea.	13.00
New castings, per lb.	.04
26 castings to grade, ea.	3.00
9,660 lin. ft. street curb without	.42
9,660 lin. ft. street curb with	.55
1,068 lin. ft. curve curb	.65
1,056 headers, ea.	40.00
2,000 lbs. steel	.04
17,283 sq. yds. concrete	1.64
Total	$44,172

Little Rock, Ark.—The proposed work in Miller County includes building 60 miles highway, 25 miles to be concrete, bitulithic or brick, balance to be native gravel. Validity of enabling act now being tested in court. Expect verdict about June 1, 1915, after which engineering work will be started. Bridge across Red River for railroad also included in plans. Lund & Hill, Consulting Engrs., Little Rock.

Cuero, Tex.—Citizens Road Dist. No. 2, De Witt County, voted $50,000 bonds for road improvements.

Ennis, Tex.—Bids desired until May 3 by Briggs Reagor, City Secy., for approximately 26,500 sq. yds. pavement, together with necessary concrete curb and gutters, sewer pipes, catch basins. Bids will be considered for 3 in. vertical floor brick, asphaltic concrete, vibrolithic and asphalt macadam.

Forney, Tex.—Bids desired until May 11 by Bd. Permanent Road Comrs., Justice Prect. No. 2 (Forney), at Kaufman, to construct a system of roads and bridges in said Justice Prect. No. 2. Fund available approximately $200,000. C. C. O'Neil, Highway Engr., Forney.

Longview, Tex.—B. K. Caldwell, Shreveport, La., and E. W. Davis, Longview, were appointed engineers and to superintend county road work; about 100 miles hard surface roads will be built.

Magnolia Park (P. O. Houston), Tex.—It is proposed to construct about 15 miles of shell and gravel roads at a cost of $40,000. Bonds have been sold. Engineer, G. R. Kelly, R. F. D. No. 1, Houston.

McKinney, Tex.—Bids desired until June 7 by Comrs. Court of Colin County, at McKinney, for constructing about 125 miles of public highway in Road Dists. No. 4, 8 and 9, macadam, gravel and concrete. John Mead, Co. Engr.

Port Lavaca, Tex.—Citizens of Road Dist. No. 1 voted $60,000 bonds for constructing gravel and shell roads.

Sherman, Tex.—Citizens of Grayson County voted $900,000 bonds for constructing roads.

Whitsett, Tex.—Citizens voted Apr. 17 to issue $40,000 bonds for constructing roads.

Anacortes, Wash.—Bids desired by City Clerk until May 4 for paving Commercial Ave., 11th to 36th Sts., about 15,000 sq. yds., with asphalt or 2-course concrete with 14,000 lin. ft. wood curb. C. C. Temple, City Engr.

Anacortes, Wash.—City Council voted to pave with concrete S. Commercial Ave.; cost about $40,000.

Concrete, Wash.—Bids reported desired until May 11 by Chas F. Ramsdell, City Clk., for clearing, grading and constructing a one-course concrete roadway and crushed rock roadway 16 ft. wide, on Main St. A. L. Strong, Co. Engr., Mt. Vernon. Probable cost, $12,000.

★**Curtis, Wash.** — Contract for constructing 1½-mile road near Curtis awarded by Lewis County Comrs. at Centralia to T. B. Bidwell, Portland, Ore., at $9,724.

Edmonds, Wash.—Bids reported desired until May 10 by County Comrs., Everett, for constructing a 2-mile extension to the North Trunk brick road near Edmonds.

Elma, Wash.—City Council voted to pave with concrete one mile streets, including Main, 3d, 5th and Young Sts.

Ferndale, Wash.—City Council voted to pave 3d St. with cement; cost about $10,000.

Olympia, Wash.—City Council voted to surface Maple Park Dist.; cost about $20,000.

North Yakima, Wash.—W. M. Vance, Clk. Co. Comrs., writes contract was awarded Apr. 21 for Permanent Highway No. 14 to the Cascade Constr. Co., of Seattle, at $12,962. Work includes grading and construction of a gravel road 21,352 ft. long, 14 ft. wide, with earth shoulders 5 ft. wide.

★Surveys being made for state road between North Yakima and Ellensburg. Contract will soon be let for construction by State Highway Dept. at Olympia. Cost about $10,000.

Seattle, Wash.—Lowest bid opened by Bd. Public Works Apr. 9 for paving 31st St. submitted by V. Ramaglia, 4830 37th Ave. N. E.

City Council voted to grade, curb and construct concrete sidewalks on Alki Ave.; estimated cost $99,232.

Following are 2 lowest bids opened by County Comrs. Apr. 20 for constructing 6 mile Redmond-Snoqualmie Highway S. Normile, 608 Kinnear Pl., Seattle, $43,400 and R. H. Wheaton, Seattle, $49,484.

Contracts will be let by Bd. Pub. Wks. during May for paving Admiral Way; estimated cost $191,000.

Bids reported desired until May 17 by County Comrs. for constructing Permanent Highway No. 9. Probable cost, $20,000.

Spokane, Wash.—Contract is about to be let by Comrs. Spokane County for macadamizing 11 miles Rockford-Waverly Rd.

Winlock, Wash.—Contract is about to be let by City Council for paving Front and W. 2d Sts.; cost about $12,000.

Portland, Ore.—Citizens of Multnomah County voted Apr. 14 to issue $1,250,000 bonds for paving 70 miles of main road through county. In this 70 miles of hard surface there will be approximately 40 miles of re-dress, as this 40 miles already has a good macadam base in place. The other 30 miles will be all new pavement, including base. This 70 miles also includes the Columbia River Highway in Multnomah County, which has lately been graded. This paving is practically the only improvement contemplated by Multnomah County, which will be let by contract. The balance of the road work for this year will be done by County Road Dept. by day labor. J. B. Yeon, County Roadmaster, Room 504 Court House, will have charge of the improvement.

Following are lowest bids opened by City Council for street improvements: Grading, concrete walks and curbs on Royal Ave. and E. 70th St. Dist., Star Sand Co., Portland, $9,887; concrete pavement on E. 71st St., to Cochran & Nutting Co., Portland, at $12,570; concrete pavement on Broke and E. Stark St. Dist., Giebisch & Joplin, Portland, at $13,577; asphaltic concrete on Shaver St., Oregon Independent Paving Co., Portland, $29,381.

El Monte, Cal.—Bids desired until May 7 by L. Worth Everett, City Clk., for 121,820 sq. ft. oil macadam pavt. and 21,200 sq. ft. concrete walk on Main St., 101,605 sq. ft. concrete base with asphalt concrete top and 18,915 sq. ft. sidewalk on Tyler St., 11,376 sq. ft. oil macadam on Columbia St. and 19,500 sq. ft. concrete base with asphalt concrete top and 6500 sq. ft. concrete walk on Center St.

Livermore, Cal.—About $45,000 paving bonds have been sold by city.

Oroville, Cal.—Contract for paving Pomona Ave. 3 blocks, Meyers St. 3 blocks, Montgomery St. 11 blocks, Marysville Road 3 blocks, with bitulithic, Warrenite paving, was awarded to Hammon Eng. Co., of San Francisco, on Apr. 17. E. J. Mitchell, City Clk.

Riverside, Cal.—Plans have been approved by County Supervisors for constructing 8 miles highway from Temecula to San Diego County line.

San Francisco, Cal.—A highway to connect the Presidio and Lincoln Park is to be constructed. The Exposition Co. appropriated $56,000 toward cost.

Bd. Works voted to pave 19th Ave. and 26th St.; cost $46,200.

San Francisco, Cal.—City Engineer has completed surveys for extending Portola Drive from Stanford Heigths to 24th St.; estimated cost about $40,000.

Sausalito, Cal.—About $70,000 bonds have been sold for street improvements.

Price, Utah.—Citizens voted Apr. 12 to issue $31,000 bonds for road improvements, and bids for the bonds will be received May 15 by A. Ballinger, Co. Treas. F. S. Dunlevey, Co. Road Supervisor.

Westmount, Que.—City Council voted to spend $49,486 for street pavements.

Ottawa, Ont.—It is proposed to pave McLeod St., Cartier to Bank St., with tarvia macadam at a cost of $18,000; also Bank St. from Sparks to Cladstone, at a cost of $96,0000, with asphalt and wood block.

★Contract awarded to Thos. McLaughlin, Ottawa, for decking a wood block pavt. on Billings Bridge, at $13,459.

STREET CLEANING AND GARBAGE DISPOSAL.

Items Arranged Geographically

Long Island, N. Y.—Bids desired May 5 by Maurice E. Connolly, Pres. Boro. for disposal of garbage, rubbish, ashes and street sweepings in 5th Ward, Boro. Queens, from May to October inclusive, 1915, and furnishing and operating necessary dumps, scows, tugs, etc.

★*Items marked thus give the names of parties awarded contracts.*

New York, N. Y.—Bids desired until May 5 by J. T. Fetherston, Comr. Street Cleaning, Room 1244 Municipal Bldg., New York, for furnishing and delivering 2 scrubber or squeegee machines; also same time and place for 4 locomotive cranes.

★**Wilmington, Del.**—Contract for disposal of the city's garbage for the next 9 years, commencing June 1, was awarded Apr. 19 to American Reduction Works, Inc., Newark, N. J., at $2,400 per year for the first 3 years; $3,000 for the next 3 years, and $3,600 for the last 3 years. In the proposal company agrees to turn over to city 10 per cent of all net profits and agrees to build its own plant on city's ground and turn over to city at expiration of contract the entire works.

Augusta, Ga.—Bids desired until May 6 by City Council to furnish material and construct an incinerator plant in the 6th Ward. Bids desired on units of 2 sizes, one 8 to 10 tons capacity in 12 hours daily run; 2d 12 to 15 tons capacity in 12 hours daily run. The plant to be enclosed in sheet steel corrugated iron structure. Nisbet Wingfield, City Engr.

Cincinnati, O.—Bids desired until May 12 by Ernst Von Bargen, City Purchasing Agt., for furnishing 4 street sprinklers.

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Items Arranged Geographically

Dock Walls—Albany, N. Y.—City Council reported to be considering issue of $50,000 bonds for building dock walls along river front property of city, and for other improvements in conection with general river front improvements.

Crib—Buffalo, N. Y.—Lowest bid opened by Francis G. Ward, Comr. Pub. Wks., Apr. 14 for constructing a 600-ft. timber crib and concrete top or all concrete dock wall along Bird Island Pier, Black Rock Canal, submitted by Great Lakes Dredge & Dock Co., Morgan Bldg., at $38,250. Geo. H. Norton, Deputy Engr. Comr.

Wharf—Dunkirk, N. Y.—Bids desired until May 18 by A. D. T. Toomey, City Clk., to construct proposed wharf.

Bids for the purchase of $100,000 bonds for constructing the above dock will be received May 4. W. H. Shelton, City Engr.

Boat Landing, Etc., Kingston, N. Y.—Bids desired until May 15 at office of J. T. Yates, Lighthouse Inspector, Tompkinsville, N. Y., to furnish material and construct a boat landing, and to furnish and install a boat crane at Roundout (North Dike) Light Station.

Dredge—New York, N. Y.—Bids desired until May 28 by Col. W. N. Black, Corps Engrs., U. S. A., New York, N. Y., for constructing and delivering a combination drill, scow and dredge "General Gillespie," advertised in Engineering Record.

Dredging—Atlantic City, N. J.—Bids desired until May 13 by Bd. Comrs. for dredging portions of Clam Creek and Delta Basin and approaches thereto from Absecon Inlet in Atlantic City, advertised in Engineering Record, approximately 103,800 cu. yds. J. B. Thompson, Dir. Dept. Streets and Pub. Improv. J. W. Hackney, City Engr.

★**Boardwalk—Sea Isle City, N. J.**—Contract reported awarded by City Comrs. to Clarence Pfieffer for building 4200 ft. of boardwalk along beach front at $12,690.

Dredging and Wall—Philadelphia, Pa.—Bids desired until May 4 by Comrs. Fairmount Park (Jesse T. Vodges, Ch. Engr.) for dredging, river wall, etc.

Steel Lock Gates for Dam Work—Wheeling, W. Va.—Bids desired until May 18 by Maj. T. H. Jackson, Corps Engrs., U. S. A., Wheeling, W. Va., for furnishing and erecting steel lock gates for Dams Nos. 12 and 20, Ohio River, advertised in Engineering Record.

Drainage—Charlotte, N. C.—Bids desired until May 3 by the Mecklenburg Drainage Comn. (W. S. Pahrr, Secy.) for drainage improvements in McAlpine's Creek Drainage Dist. No. 1. The work consists of about 4 miles dredging ditches, containing approximately 300,000 cu. yds., and 1200 lin. ft. lateral ditches, containing approximately 12,000 cu. yds.

Drainage Bonds—Lumberton, N. C.—Bids desired until May 3 by G. B. Sellars, Chmn. Bd. Drainage Comrs., Black Swamp and Joacob Swamp Drainage Dist., for $15,000 bonds.

Drainage Ditches—Bartow, Fla.—Bids desired until June 1 by Peace Creek Drainage Dist., 77 Main St., Bartow, for constructing 142 miles of drainage ditches in said district advertised in Engineering Record, approximately 2,432,743 cu. yds. excav. C. G. Elliott, Ch. Engr., McLachlen Bldg., Washington, D. C.

Sheds on Pier—Jacksonville, Fla.—Press reports state bids are desired by Capt. F. W. Bruce, Engr. of Port Comn., for construction of sheds on piers at docks. They will be 73 ft. wide and 1000 ft. long.

Drainage—Leesburg, Fla.—Hiram McElroy, Tampa, is reported to be making surveys preliminary to the drainage of 70,000 acres swamp land in Lake, Pasco, Sumter and Hernando Counties.

Drainage—Taft, Fla.—Final surveys are being made by R. H. Ludlum, of Kissimmee, for proposed work contemplated by Taft Drainage Co. J. F. Harrington, Secy.

Drainage—Plain Dealing, La.—Following are bids opened Apr. 21 for improving drainage in Postem and Phelps Lake, Bossier Parish, about 72,000 cu. yds. sandy loam and stiff red clay (price given per cu. yd.): Hall Nattin, Shreveport, 17.4 cts.; J. M. Montgomery, Shreveport, 18.7 cts.; Geo. Epple, Shreveport, 22.25 cts.; Nergman Gregory, Texarkana, Ark., 22.5 cts.; total cost of work $12,528. Work includes clearing of right-of-way entire length of line 10,700 ft.; width of clearing, 200 ft.; also includes 2 canals. F. B. Grevemberg, Jr., Engr., Continental Bank Bldg., Shreveport.

Levee Work—Clarksdale, Miss.—Bids desired until May 12 by Levee Bd. (T. G. Dabney, Ch. Engr., Clarksdale) for concrete work, being a continuous concrete slab 3 in. thick to be laid on the river side slope of the levee, about 138,000 sq. yds. (Bids should be made per sq. yd.)

★**Levee Work—Clarksdale, Miss.**—Contracts for levee enlargement work in Tunica County, reported awarded as follows: Martin Jennings & Bros., 5 miles; Roach, Stansell & Lowrance, 4 miles, and Bondurant, Clarke & Co., 1 mile; work includes about 900,000 cu. yds., and the average price for the whole 10 miles is 20.6 cts. per cu. yd.

★**Levee Work—Greenville, Miss.**—Contract awarded Apr. 16 for constructing about 265,000 cu. yd. levee work (average height about 16 ft., average haul about 350 ft.) to R. F. C. Clarke, Natchez, Miss., at 14.59 cts. per cu. yd. Next 3 lowest bids on complete work (per cu. yd.), John G. Sessions, Memphis, Tenn., 15.4 cts.; Burt, Bond & McMurray, Beulah, 15.48 cts.; E. H. Jackson & Co., Natchez, 16.9 cts. W. L. Thompson, Ch. Engr., Mississippi Levee Comn., Greenville, Miss.

Levee Work—Memphis, Tenn.—Bids desired until May 26 by Maj. E. M. Markham, Corps Engrs., U. S. A., Memphis, Tenn., for constructing about 4,500,000 cu. yds. levee work in Upper and Lower St. Francis and White River Levee Districts, advertised in Engineering Record.

★**Drainage System—Union City, Tenn.**—Contract awarded Apr. 12 by Directors of Obion River Drainage Dist. (J. A. Coble, Secy.) for constructing about 1,564,300 cu. yd. levee work, with floating dredge, and about 631,700 yd. ditch work, 3 reinforced concrete sluiceways, etc., to Swamp Dredge Co., Tupelo., Miss., at $208,000.

River Improvement—Tiffin, O.—Lowest bid opened Apr. 20 by Bd. Pub. Service for deepening, widening and straightening Sandusky River submitted by Lewis Jones, of Fostoria, at $59,767. The work consists of earth and rock excavation and a concrete retaining wall requiring approximately 56,900 cu. yds. earth excavation, 1000 cu. yds. rock excavation, 4100 cu. yds. reinforced concrete or 8125 cu. yds. plain concrete, 8820 ft. w.-i. 2-in. pipe for railing on top of wall.

★**Ditch Work, Hartford City, Ind.**—Contract reported awarded by County Comrs., to Chas. Clamme, of Hartford City, for ditch work along Lick Creek, at $27,095.

Flood Protection—Indianapolis, Ind.—Lowest bids opened Apr. 26 for flood protection along west bank of White River from Belt R.R. tracks on the south to 14th St. on the north submitted by Cleary White Constr. Co., Chicago, Ill., at $458,000. B. J. T. Jeup, City Engr.

Sanitary Dist. Work—Chicago, Ill.—Bids desired until May 6 by John McGillen, Clk. Bd. Trus. Sanitary Dist. Chicago, for dredging South Branch of Chicago River between Washington and Randolph Sts., approximately 5,000 cu. yds.

Dam — Shawano, Wis. — The Electric Light and Water Works Comn. reported to have engaged the Power & Eng. Co. of Minneapolis, Minn., to prepare plans for a dam on Wolf River to furnish power

Dredging — Estherwood, Ia. — Bids desired until May 15 at office of 5th Ward Drainage Dist. No. 1, Estherwood (Ellis Hoffpaur, Pres.), for dredging about 25 miles gravity drainage canals, estimated 300,000 cu. yds. Bids also desired same time and place for $38,000 drainage bonds.

Irrigation—Belle Fourche, S. D.—F. C. Magruder, of Scotts Bluffs, Engr. of the Spring Valley Irrigation Co., writes bids are desired about June 15 for building the Spring Creek Irrigation system to irrigate about 12,000 acres of land in Spring Creek Valley. Capacity of reservoir when filled 13,600 acre-ft.; total length of canal, 40 miles; estimated cost, $350,000.

Drainage—Donna, Tex.—Bids desired until May 17 by Geo. B. Meriwether, Chmn. Drainage Dist. No. 1, at office of C. S. Clark, Engr. of said district, at Donna, for constructing ditch and levee and improving water course known as Cibolo, comprising about $90,000 cu. yds. dirt work.

Levee Work—Waxahachie, Tex.—Bids reported desired until May 10 by T. H. Harbin, Waxahachie, for constructing a levee on Chambers Creek, 175,000 cu. yds.

★**Fill — Seattle, Wash.**—Contract reported awarded by Bd. of Pub. Wks. for Duwamish Fill 3, to Holt & Jeffery, Railway Exchange Bldg., Seattle, at $26,976.

★**Dike—Willapa, Wash.**—Contract reported awarded to Cowlitz River Bridge Co., Yeon Bldg., Portland, Ore., for construction of a dike in Palix River section of Willapa Harbor, Wash., at $60,000.

Irrigation—Culver, Ore.—Citizens voted Apr. 10 to issue bonds for improving Suttle Lake for irrigation purposes from plans of Geo. S. Young, of Bent, Ore. H. Z. Cheoweth, of Grandview, Ore., reported interested.

Canal — Modesto, Cal. — Bids reported desired until May 4 by Bd. Dirs. Modesto Irrigation Dist., Modesto (C. S. Abbott, Secy.), for constructing an earthen fill with reinforced concrete lined canal along line of main canal across Indian Hill Gulch.

Dam—Ogden, Utah.—Press reports state that bids will soon be called for by the Weber & Davies Counties Canal Co. (J. C Nye, Secy.) for the new dam, to cost about $150,000.

Protection Work for Dam—Valleyfield, Que.—Bids desired until May 7 by Dept. Railways and Canals, Ottawa, Ont. (J. W. Pugsley, Secy.), for protection work for Valleyfield Government Dam.

Power Plant Improvement—Niagara Falls, Ont.—It is reported that the Canadian Niagara Power Co. contemplates extensive improvements, including a new forebay.

Drainage—Toronto, Ont.—Press reports state that owing to legal and financial difficulties, installation of a new drainage system for North Toronto including outlet and sewage disposal works recommended last year by Commissioner Harris, and which was estimated to cost $4,160,000, has been abandoned for present.

ELECTRIC RAILWAYS.

Items Arranged Geographically

Brooklyn, N. Y.—Bids desired until May 18 by Public Service Comn. for First Dist., 154 Nassau St., New York, for constructing Sect. No. 2 of Route No. 49, part of the Culver Rapid Transit R. R., Boro. Brooklyn, advertised in Engineering Record.

Corona, L. I., N. Y.—Right of Way has been secured for an electric railway to be constructed between Corona and Lakeville. Lakeville Holding & Development Co. said to be interested.

Penn Yan, N. Y.—Contract is about to be let for ½ mile 7-ft. girder rails for Penn Yan & Lake Shore Ry. (Geo. E. Tylee, Pres., 53 State St., Boston, Mass.).

Irwin, Pa.—Surveys have been completed by Irwin-Herminie Traction Co. on line from Irwin to Manor. S. A. Stewart, Ch. Engr., Irwin.

Petersburg, Va.—Petersburg & James River Ry. Co. incorporated to build 11-mile electric railway from Petersburg to City Point. Capital $25,000. J. Walter Long, 801 Real Estate Trust Bldg., Washington, D. C., Secy.

Wheeling, W. Va.—Plans are being prepared for an extension of Wheeling Traction line through Rayland to Dillonvale, Mt. Pleasant and Adena.

Goldsboro, N. C.—Goldsboro Street Ry. Co. charted to construct electric railways in or adjacent to Goldsboro within radius of 25 miles. Capital $25,000. G. S. Dewey and Joseph E. Robinson incorporators.

Furman, S. C.—Furman & Yemassee R. R. Co. is chartered to build 20-mile interurban railway between Furman and Yemassee. Capital $10,000. J. H. Adams and W. P. Ellis among incorporators.

Atlanta, Ga.—Georgia Electric Ry. Co. chartered to construct electric railways in Georgia. Capital $5,000. B. O. Bittick and W. M. Bennett interested.

Coldwater, Mich.—Contract is about to be let for constructing Battle Creek, Coldwater & Southern Ry. between Battle Creek, Coldwater and Girard. T. A. Hilton, Pres.

Muskegon, Mich.—Surveys are being made by Muskegon, Casanovia & Saginaw Interurban Ry. Co. for 92-mile line to be constructed between Muskegon and Ithaca. Jas. L. Smith, Secy.

★**New York, N. Y.**—Bids were opened by Public Service Comn., 154 Nassau St., New York, Apr. 20, for construction of Sect. 2 of Route 12, Eastern Parkway subway in Brooklyn, to be operated by Interborough Rapid Transit Co.: (a) Inter-Continental Constr. Co., 26 Cortlandt St., $2,744,263 (awarded contract); (b) Bayly Hipkins, $2,765,210; (c) Chas. Cooper, $2,872,705; (d) Underpinning & Foundation Co., $2,938,725; H. P. Converse & Co., $2,944,281; Degnon Contr. Co., $3,049,727; T. A. Gillespie Co., $3,064,609; Norton & Gorman Contr. Co., $3,143,174; Newman & Carey, $3,322,831; Oscar Daniels Co., $3,347,811; Dock Contr. Co., $3,357,808; E. E. Smith Contr. Co., $3,358,111; Mason & Hanger Co., $3,409,436; Tidewater Bldg. Co., $3,445,596; Rogers & Hagerty, Inc., $3,445,680; Arthur McMullen, $3,583,550; John J. Creem, $3,772,697; Smith, Hauser & McIsaac, Inc., $3,860,786; W. H. Gahagan Inc., $3,888,387.

Unit prices of 4 lowest bids (a), (b), (c) and (d):

		*(a)	(b)	(c)	(d)
1	606,000 cu. yds. earth excavation above mean high water	$1.75	$1.60	$1.96	$1.98
2A	800 cu. yds. earth excavation above and below mean high water sewers	1.75	3.00	1.96	1.98
4Z	30 front ft. maintaining and underpinning buildings	10.00	50.00	40.00	80.00
4EE	Maintaining, moving and restoring Slocum statue	600.00	10,000.00	2,000.00	4,000.00

Aurora, Ill.—Aurora, Midland & Western Ry. Co. has been organized to construct an electric railway to connect Aurora, Mendota, Somonauk, Sandwich, Plano, Bristol and Meriden.

Kankakee, Ill.—Preliminary arrangements are being made by Kankakee & Lafayette Electric Ry. Co. to build electric railway to connect Kankakee and Lafayette. O. L. Brown, Gen. Mgr.

La Salle, Ill.—Surveys being made and right-of-way secured for electric and steam railway between Orlesby and La Salle. J. B. McCoffrey, La Salle, Pres.

Marfa, Tex.—B. Q. Musgrave, Ft. Worth, plans to construct 18-mile electric interurban railway from Marfa to Ft. Davis.

Parker, Ariz.—Surveys have been completed by Parker & Colorado River Electric Ry. W. H. Tharpe, Parker, is interested.

Brigham, Utah.—Work will begin soon on Brigham-Wellsville extension of Ogden, Logan & Idaho Ry., distance 35 miles. R. W. Armstrong, Ch. Engr., Ogden.

RAILROADS.

Items Arranged Geographically

Buffalo, N. Y.—Bids will soon be asked for by the Buffalo Grade Crossing Comn. (E. B. Guthrie, Engr., 438 Ellicott Square Bldg.) for construction of 2 subways under Pennsylvania R.R. at Lord and South Sts., respectively; also for street subway and 2 railroad viaducts (steel) at the Bailey Ave. crossing of the Pennsylvania, Lehigh Valley and Delaware, Lackawanna and Western Railroads. Estimated cost $350,000.

Barbourville, Ky.—The Cumberland Northern Railroad Co. (Chas. F. Heidrick, Pres., Brookville, Pa.), reported to have completed surveying a line from Barbourville to Beattyville, Ky., a distance of 75 miles.

★**Portsmouth, O.**—Contracts for building 28 miles of railroad for the Chesapeake & Ohio Northern between the Ohio River near Portsmouth, to Waverly, costing in the neighborhood of $3,500,000, have been tentatively let as follows: To W. W. Boxley & Co., of Roanoke, Va.; Winston & Co., Richmond, Va., and New York; Rinehart & Dennis Co., of Charlottesville, Va.; and Robt. Grace Contr. Co., of Pittsburgh, Pa. This work is for grading and masonry on the new railroad.

★**Missouri.**—Contract has been awarded to the Railroad Constr. Co., 80 5th Ave., New York, for completion of a line between Springfield and Little Rock, Ark.

★**Texas.**—Contract has been awarded to the Railroad Constr. Co., 80 5th Ave., New York, for completion of a line between Ft. Worth and Eagle Pass.

Rochester, Nev.—R. E. Tilden, of Winnemucca, Ch. Engr. Nevada Short Line, writes that construction work is about to start on extension of its present line to the Gold and Silver Camp of Rochester.

Glacier, B. C.—See "Miscellaneous."

PUBLIC BUILDINGS AND SCHOOLS.

Items Arranged Geographically

★**Brunswick, Me.**—Contract for erecting high school to replace building destroyed by fire has been awarded to Geo. H. Wilbur & Son, of Bangor, at $26,669.

Portland, Me.—Reported steps being taken by High School Comn. for erecting the high school.

Chicopee, Mass.—Bids desired until May 8 by School Com. (John C. Gray, Secy.), to erect addition to High School; also separately for heating, plumbing and electrical work.

Chicopee, Mass.—Reported bids desired May 8 by John C. Gray, Supt. of Schools, for erecting an addition to the high school costing $55,000. Geo. E. Haynes, Pittsfield, Archt.

★**Somerville, Mass.**—Contract awarded Apr. 20 for erecting school to Danl. S. Shepard, 46 Cornhill, Boston, at $22,300. Next 3 lowest bids: C. S. Cunningham & Sons Co., 101 Tremont St., Boston, $22,350; F. C. Alexander, 745 Old South Bldg., Boston, $22,490; John E. Locatelli Co., 46 Cornhill, Boston, $23,871.

★Items marked thus give the names of parties awarded contracts.

4FF		Maintaining, moving and restoring Maxwell tablet boulder	400.00	1,000.00	1,000.00	500.00
4GG	98	trees, maintaining, protecting and preserving, per tree	10.00	50.00	10.00	15.00
4HH	138	trees, replacing, per tree	100.00	50.00	15.00	10.00
6	89,400	cu. yds. concrete masonry	7.00	7.00	6.50	6.50
7	6,000	cu. yds. protective concrete masonry outside w. p.	7.00	7.00	6.50	6.50
8	20	cu. yds. rubble stone masonry	7.00	7.00	5.00	6.50
8A	20	cu. yds dry rubble masonry	4.00	7.00	5.00	6.00
9	20	cu. yds. brick masonry	17.00	15.00	15.00	20.00
9D	50	cu. yds. removal and disposal of masonry foundations	2.50	10.00	5.00	10.00
10	70	cu. yds hollow terra cotta, brick or tile masonry	15.00	15.00	15.00	25.00
11	1,000	bbls. grout or Portland cement	4.00	3.00	2.50	2.20
12	1,000	lin. ft. timber piles	.50	.50	.01	.20
13	2	M ft. timber foundations	50.00	50.00	20.00	40.00
14	50	cu. yds. broken stone or gravel	2.00	2.00	2.50	3.00
15	14,700	sq. yds. (a) waterproofing, 1-ply	.50	.40	.45	.40
	100	sq. yds. (b) waterproofing, 2-ply	.90	.60	.85	.80
	39,800	sq. yds. (c) waterproofing, 3-ply	1.00	1.00	1.00	1.20
	100	sq. yds. (d) waterproofing, 4-ply	1.35	1.25	1.20	1.60
	100	sq. yds. (e) waterproofing, 5-ply	1.70	1.60	1.40	2.00
	100	sq. yds. (f) waterproofing, 6-ply	2.00	2.00	1.60	2.40
	100	sq. yds. (i) waterproofing, dry ply	.40	.40	.45	.35
16	2,000	cu. yds. brick in asphalt mastic	25.00	20.00	25.00	18.00
17	50	lin. ft. (a) vitrified drain pipe, 12 in.	1.00	1.00	1.40	1.50
	50	lin. ft. (b) vitrified drain pipe, 10 in.	.85	.85	1.25	1.25
	50	lin. ft. (c) vitrified drain pipe, 8 in.	.70	.75	1.00	1.00
	50	lin. ft. (d) vitrified drain pipe, 6 in.	.60	.60	.60	.75
	50	lin. ft. (e) vitrified drain pipe, 4 in.	.60	.50	.50	.50
	50	lin. ft. (g) cast-iron drain pipe, 6 in.	1.50	1.50	1.25	1.50
	50	lin. ft. (h) cast-iron drain pipe, 4 in.	1.00	1.00	1.00	.75
	200	lin. ft. (i) cast-iron drain pipe, 10 in.	2.40	2.25	3.00	2.50
17A	100	lin. ft. (a) cast-iron pipe and fittings, 3 in., extra heavy	1.00	1.00	1.00	.75
	5,100	lin. ft. (b) cast-iron pipe and fittings, 4 in., extra heavy	1.25	1.25	1.30	1.00
	300	lin. ft. (c) cast-iron pipe and fittings, 6 in., extra heavy	1.50	2.00	1.65	1.50
	200	lin. ft. (d) cast-iron pipe and fittings, 8 in., extra heavy	2.00	2.50	2.00	2.00
18	442,000	duct ft. tunnel ducts	.10	.10	.09	.15
18A	28,400	duct ft. railroad ducts	.12	.10	.20	.20
19	5,300	tons riveted steel	54.00	56.00	55.00	60.00
20	7,070	tons steel beams and shapes	48.00	56.00	55.00	56.00
21	960	tons steel rods and bars	60.00	60.00	55.00	56.00
25	100	tons miscellaneous iron castings	65.00	75.00	70.00	80.00
35C	1	ton miscellaneous sewer irons	65.00	75.00	70.00	100.00
26	200	lbs. special wire forms	.10	.10	.12	.20
27B	12,900	lin. ft. seasoned oak or ash handrail, 1¾ in.	.25	.25	1.50	.35
28	16,300	sq. ft. steel gratings for ventilation	1.50	1.50	1.40	1.00
29	3,040	sq. ft. vault lights	1.40	1.50	1.40	.90
30	680	sq. yds. (a) sidewalks restored	.50	3.00	2.00	1.00
	100	sq. yds. (d) repavement of roadways, macadam	.60	1.50	1.00	1.80
	1,000	sq. yds. (e) repavement of roadways, asphalt	2.00	2.75	2.50	2.25
	900	sq. yds. (f) repavement of roadways, granite block	2.50	2.50	4.00	1.00
	11,300	sq. yds. (ff) repavement of roadways, belgian block	1.00	2.00	.60	1.00
	1,000	sq. yds. (g) repavement of roadways, asphalt block	2.50	2.50	3.50	2.25
	100	lin. ft. (i) new bluestone curb	1.00	1.50	1.00	1.60
	100	lin. ft. (k) new 8-in. granite curb	1.00	1.50	1.50	2.60
	140	sq. yds. (m) repavement of roadways, brick	3.00	2.00	2.50	3.00
	19,700	sq. yds. (n) repavement of roadways, macadam and asphalt surface	1.47	1.50	1.20	2.00
31	4,800	sq. yds. park surface restored	.50	3.00	1.25	1.00
32	12,000	lin. ft. (a) elec. conduits, ¾ in., w. i.	.25	.15	.30	.20
	750	lin. ft. (b) elec. conduits, 1½ in., w. i.	.40	.30	.50	.40
	750	lin. ft. (c) elec. conduits, 2 in., w. i.	.60	.50	.75	.50
	4,400	lin. ft. (d) elec. conduits, 1 in., w. i.	.30	.20	.40	.30
33	1,100	cast-iron outlet boxes, each	1.00	.75	1.00	1.50
34	200	lin. ft. (a) cast-iron pipe and fittings, 6 in., extra heavy	1.50	2.00	2.00	1.50
	150	lin. ft. (b) cast-iron pipe and fittings, 3 in., extra heavy	1.00	1.00	1.00	.75
37	100	lin. ft. vitrified pipe sewer, 12 in.	3.00	2.50	3.00	5.00
38	100	lin. ft. vitrified pipe sewer, 15 in.	3.50	3.00	3.50	6.00
39	100	lin. ft. vitrified pipe sewer, 18 in.	4.00	3.50	4.00	5.00
40	100	lin. ft. vitrified pipe sewer, 20 in.	4.50	3.75	4.50	5.00
40A	100	lin. ft. vitrified pipe sewer, 22 in.	5.00	4.00	5.00	5.00
41	200	lin. ft. vitrified pipe sewer, 24 in.	5.50	4.50	5.50	8.00
42	3	tons cast-iron sewer pipe, straight	50.00	75.00	40.00	40.00
43	1	ton cast-iron sewer pipe, special	90.00	75.00	50.00	80.00
43A	80	lin. ft. pipe sewer, egg-shaped, 22½ in. x 15 in.	10.00	4.00	4.00	10.00
45	250	lin. ft. egg-shaped masonry sewer, 3 ft. 6 in. x 2 ft. 4 in.	10.00	6.00	6.50	10.00
46	160	lin. ft. egg-shaped masonry sewer, 3 ft. 9 in. x 2 ft. 6 in.	10.00	7.00	7.50	10.00
47	50	lin. ft. egg-shaped masonry sewer, 4 ft. 0 in. x 2 ft. 8 in.	11.00	8.00	8.00	10.00
52	125	lin. ft. circular masonry sewers, 3 ft. 9 in.	12.00	8.00	8.00	10.00
75	780	lin. ft. (c) maintaining electric (overhead trolley) railroad s. tr.	5.00	10.00	2.50	2.50
76L		Maintaining and underpinning subsurface railroad	2,000.00	20,000.00	10,000.00	15,000.00
79	100	lin. ft. water pipe, 6 in.	1.00	1.00	.75	.60
80	100	lin. ft. water pipe, 8 in.	1.25	1.50	1.50	.80
82	100	lin. ft. water pipe, 12 in.	1.50	2.00	1.60	1.20
83	100	lin. ft. water pipe, 16 in.	2.25	3.50	1.80	1.60
84	250	lin. ft. water pipe, 20 in.	3.00	4.00	2.00	2.00
86	500	lin. ft. water pipe, 30 in.	6.00	6.00	3.00	3.00
87	500	lin. ft. water pipe, 36 in.	7.50	10.00	3.50	3.60
88	250	lin. ft. water pipe, 48 in.	10.00	15.00	4.00	4.80
88A	20	service connect's for water pipes, ea.	25.00	25.00	10.00	20.00
90	100	lin. ft. gas pipe, 4 in., c. i.	.60	1.00	.60	.40
91	100	lin. ft. gas pipe, 6 in., c. i.	1.00	1.25	.75	.60
93	100	lin. ft. gas pipe, 10 in., c. i.	1.25	1.50	1.60	1.00
94	100	lin. ft. gas pipe, 12 in., c. i.	1.50	2.00	1.60	1.20
95	100	lin. ft. gas pipe, 16 in., c. i.	2.25	2.25	1.80	1.60
99A	400	lin. ft. (a) by-passing pipe, 6 in., w. i.	2.50	3.00	3.00	3.00
	100	lin. ft. (b) by-passing pipe, 8 in., w. i.	3.00	3.50	3.50	3.50
	4,150	lin. ft. (d) by-passing pipe, 12 in., w. i.	4.00	4.50	5.00	4.00
99B	150	lin. ft. (b) by-passing pipe on trestle, 16 in., w. i.	5.25	5.00	12.00	8.00
	150	lin. ft. (g) by-passing pipe on trestle, 8 in., w. i.	3.00	3.50	3.50	4.00
	130	lin. ft. (h) trestle for by-passing pipe	3.00	5.00	4.00	8.00
99D	20	service connections for gas pipes, ea.	15.00	20.00	10.00	25.00
100	75	tons cast-iron hub and spigot pipe, straight	100.00	50.00	40.00	40.00
101	18	tons cast-iron hub and spigot pipe, special	120.00	75.00	65.00	80.00
127	2,000	duct ft. electric ducts and conduits	.50	.30	.50	.80
127A	500	lin. ft. (b) electric ducts and conduits, w.-i. pipe, 3 in.	.50	.60	.65	1.00
	500	lin. ft. (c) electric ducts and conduits, w.-i. pipe, 3½ in.	.50	.75	.60	1.00
127C	20	service connections for elec. ducts, ea.	25.00	20.00	10.00	25.00
127D	1,000	duct ft. wooden electric ducts and conduits	.25	.75	.50	.80

Lawrence, Mass.—All bids opened Apr. 20 for erecting the Central Grammar School have been rejected as being too high.

Winthrop, Mass.—Citizens voted $74,800 bonds for enlarging the high school.

Worcester, Mass.—Bids desired until May 5 by Geo. C. Halcott, Supt. Pub. Bldgs., to erect a 3-story fireproof addition to Cambridge St. School No. 1, together with incidental alterations to Cambridge St. School No. 2, including heating, plumbing, etc. O. C. S. Ziroli, Archt., 306 Main St.

Local press reports state time for receiving bids for erecting addition to North High School has been extended from May 3 to May 6. Geo. C. Halcott, Supt. Bldgs.; John T. Simpson, Newark, N. J., Archt.

Plans prepared by L. W. Briggs Co., 314 Main St., for an 8-room addition to Midland St. School have been approved by Com. on Schoolhouses.

Worcester, Mass.—Plans are to be prepared by Geo. C. Halcott, Supt. of Bldgs., for an 8-room addition to the Midland St. School.

Providence, R. I.—Bids will be asked about May 3 by Bd. Educ. for erecting the Mount Pleasant School to contain 18 rooms. Address Mayor.

Rhode Island.—State Legislature has passed bond order of $458,500 to cover following appropriations, which will be used by State Bd. Control and Supply (W. A. Schofield, Chmn.), Providence: $40,000 for completing dormitory repairs to school building and other repairs at State Home and School; $201,500 for new buildings at State Hospital for Insane, at Cranston, including 2-story dormitory on present foundations of buildings, known as Nos. 9 and 11, and present laundry building; also $135,000 for 2-story dormitory as addition to old 2-story dormitory; $60,000 for lighting and heating unit at State Hospital for Insane; $120,000 for hospital for advanced cases of tuberculosis at Wallum Lake.

★**Bridgeport, Conn.**—Contracts awarded Apr. 19 for erecting school on Claremont Ave. as follows: Mason work, to Casey & Hurley, 120 Pequonnock St., $18,270; carpentry, Chas. A. Bjorklund, 1490 Park Ave., $8,793; heating and ventilating, also plumbing, J. J. Scanlon, 1772 Main St., $5,065. A. J. Eagen, Clk. Bd. Educ.

Waterford, Conn.—Plans for the 2-story brick school to be erected on Quaker Hill are to be prepared by Jas. Sweeney, New London.

Albany, N. Y.—Bids desired until May 17 by Bd. Contract and Supply (Isidore Waschman, Secy.) for erecting police stable annex and garage at Sheridan Ave. and Hawk St., including heating, plumbing, etc. Alex. Selkirk, Archt., 133 N. Pearl St.

Ft. Terry, N. Y.—Bids desired until May 28 by Constructing Quarter Master, Ft. H. G. Wright, for erecting an annex to the hospital at Ft. Terry, advertised in Engineering Record.

★**Great Kills, S. I. N. Y.**—Contract awarded Apr. 26, by C. B. J. Snyder, Supt. School Bldgs., New York, for general construction of school 8 Great Kills, Boro. of Richmond, to T. A. Clarke Co., 122 Livingston St., Brooklyn, at $72,250, plumbing and drainage to Chas. Williams, 286 E. 136th St. New York, at $3,750.

Ithaca, N. Y.—Bids reported desired May 6 by Trus. Cornell Univ. for erecting residential halls, B and C, 2 and 3 stories stone and slate roofs. Day & Klauder, Archts., Philadelphia, Pa.

★**New York, N. Y.**—Contracts awarded as follows by Dept. of Health for constructing staff house and Nurses' Home at the Willard Parker Hospital, ft. of E. 16th St., Manhattan: General construction to Harby, Abrom & Melins Co., 30 E. 42nd St., $153,900; plumbing, John F. Koop, 23 Lawrence St., Brooklyn, $16,840; steam heating, Walker & Chambers, 22 E. 41st St., at $7,485.

★**Rockville Center, L. I., N. Y.**—Contract awarded by Bd. Educ. for erecting a 2-story school, to contain 9 rooms and kindergarten, to Moses R. Cornwell, of Rockville Center, at $31,200, exclusive of heating and ventilation. Next 3 lowest bids: Thos. E. McHugh, 676 Leonard St., Brooklyn, $32,400; Jas. MacArthur Co., 22 Ormond Pl., Brooklyn, $35,700; Frank J. Felgenhamer Co., 4 Court St., Brooklyn, $39,743. Heating and ventilating contract not yet let.

Atlantic City, N. J.—Bd. Freeholders has adopted plans for the tuberculosis hospital for county patients to be erected at a cost of $40,000.

Elizabeth, N. J.—Plans are to be prepared by C. Godfrey Poggi, 2 Julian Pl., for a 2-story school for Bd. Educ.; cost $52,000.

School bonds amounting to $395,000 have been sold.

Ft. Hancock, N. J.—Bids desired until May 26 by Capt. E. P. Bertholf, Comdt. Treas. Dept., U. S. Coast Guard, Washington, D. C., for moving and altering Sandy Hook Coast Guard Station, Ft. Hancock, N. J., advertised in Engineering Record.

Freehold, N. J.—Governor has signed the bill appropriating $25,000 for an armory to be erected in Freehold.

Glen Gardner, N. J.—Reported bids desired May 6 by Commissioner of Charities and Correction, Trenton, for erecting a 3-story concrete, stone and timber, 25 x 64 ft. building at Glen Gardner for State Sanatarium for Tuberculosis.

Millville, N. J.—Bd. Educ. rejected all bids recently received for erecting school, which is to cost about $75,000.

Newark, N. J.—Bids desired May 11 (readvertisement) by Bd. Trus. Parental School, care Bd. Freeholders, Newark, for erecting the parental school on Sussex and Duryee Sts. Lowest bids opened Apr. 20 for this building totaled about $56,534. Bids to include heating, plumbing, etc. Jacob H. & Wm. C. Ely, Archts., Firemen's Bldg.

Common Council Apr. 23 passed a resolution providing for the construction of a 1-story market adjoining present Center Market; cost not to exceed $636,000; also authorized plans prepared by Hooper & Co., 118 Market St.

Arden, Pa.—Reported plans for the home for the insane and cottages to be erected here for the Washington County Directors of the Poor are to be prepared by McMaster & Crooks of Pittsburgh; cost $100,000.

Canton, Pa.—Reported all bids opened recently for erecting the $28,000 high school have been rejected by the Bd. Educ. and new bids will probably be asked.

Clearfield, Pa.—Citizens voted recently to issue $100,000 bonds for purchase of site and erection of high school.

Franklin, Pa.—E. E. Joralemen, of Buffalo, N. Y., is engaged to prepare plans for the school on State St.

Huntingdon, Pa.—Trus. of J. C. Blair Memorial Hospital have accepted the plans of Edw. L. Tilton, of New York, for the proposed nurses' home, which is to cost $30,000.

Johnstown, Pa.—Church. Com. of St. John's R. C. Church has decided to erect an addition to the parochial school at Adams and Railroad Sts.; cost $45,000. Comes & Kauzer, Pittsburgh, Archts. Rev. John Boyle, Pastor.

★**McKeesport, Pa.**—Contract awarded Apr. 22 for erecting high school to Dawson Constr. Co., Pittsburgh, at $147,000. Vrydaugh & Wolfe, Archts., Pittsburgh.

★**Philadelphia, Pa.**—Contract awarded to Wm. J. McShane, 417 S. 13th St., for erecting 3-story concrete and stone parochial school on Tinicum Ave. and 85th St., at $34,750.

★**Pittsburgh, Pa.**—Contract for erecting the building for the Bureau of Mines, we are officially informed, has been awarded to Geo. B. Wills, 101 Park Ave., New York, N. Y., and not to Geo. H. Willis & Co. Approximate cost, $287,540.

★Contract for excavating and clearing site for above building awarded to C. A. Riffle Co., 421 Wood St., Pittsburgh, at $27,242, and for mechanical equipment for said building to Standard Eng. Co., Washington, D. C., at $63,650.

South Bethlehem, Pa. — Reported bids about to be asked by Bd. Educ. for erecting the 3-story brick and stone high school according to plans by A. W. Leh, of South Bethlehem.

Front Royal, Va.—Bids desired until May 24 by Constructing Quarter Master, Remount Depot, Front Royal, Va., for erecting buildings at this post, advertised in Engineering Record.

Grafton, W. Va.—Reported bids desired May 5 by Bd. Educ. for erecting the school, to cost $80,000.

Richwood, W. Va.—Bids desired until May 10 by Town Council for erecting a municipal building. W. D. McClung, Mayor.

★**Darlington, S. C.**—Contract awarded Apr. 20 for erecting school to J. M. Harby, of Sumter, S. C.; cost about $40,000. Wilson & Sompayrac, Archts., Columbia.

Greenville, S. C.—Bids desired until May 10 by County Comrs., to erect a jail; also bids for all steel work for said jail. J. T. Lawrence, Archt., Greenville.

Greenville, S. C.—Citizens voted Apr. 20 to issue $40,000 bonds for a city hospital. J. B. Marshall, Mayor.

Architects desiring to compete for the new $60,000 court house apply to David B. Traxler, Chmn. Court House Comn., Greenville, advertised in Engineering Record.

Hartsville, S. C.—Wilson & Sompayrac, of Columbia have prepared plans for a building to be erected at Coker College, with $120,000 recently given by Maj. Coker.

Atlanta, Ga.—Bd. Educ. has adopted tentative plans for 4 school buildings.

Orlando, Fla.—City Council considering plans for the proposed $40,000 city hall.

★**Jacksonville, Fla.**—Contracts for erecting the county armory awarded to F. W. Long & Co., Jacksonville, for the general construction, at $96,495; plumbing and heating, Chas. G. Belote, at $8,834, and electric fixtures, to Ingram Electric Co., at $3,450.

★Items marked thus give the names of parties awarded contracts.

Tampa, Fla.—Plans prepared for the junior high school, to cost $40,000. Address Bd. Educ.

Covington, La. — Citizens of county voted $55,000 bonds for erecting consolidated school in St. Tammany Parish.

Noxapater, Miss.—Bd. Superv. at Louisville, has authorized $30,000 bond issue for erecting brick dormitory at Noxapater Agricultural High School.

Akron, O.—Township Bd. considering erecting a school at Norton Center for Norton Township, to cost $25,000.

Belmont, O.—Bids desired until May 6 by Bd. Educ. (J. M. Gordon, Clk.), to furnish material and erect a brick grade and high school. Separate bids desired for ventilation and heating. F. S. Rusk and Cree Sheets, Archts., 145 N. High St., Columbus.

Conneaut, O.—Bids desired until May 3 by Bd. Educ. (E. D. Loose, Clk.), to erect an addition to 15th St. School.

★**Cincinnati, O.**—Contracts for erecting the stadium at the Cincinnati Univ., which is to cost $32,000 have been awarded as follows: Reinforced concrete and brick work, including excavation, to Ferro Concrete Constr. Co.; plumbing, Richd. Murphy; iron work, L. Schriber Sons Co.; cement and carpentering, E. Meinken; electric work, L. Schriber Sons Co.

Bids desired until May 4 by Danl. Laurence, Clk. Bd. Dirs., University of Cincinnati, Burnet Woods Park, Cincinnati, to furnish material and erect the Woman's building at University; also separately for steam heating, ventilation, air washer and temperature regulation. A. Lincoln Feicheimer, Archt., Lyric Theater Bldg.; Walter G. Franz, Engr., Union Trust Bldg.

★Contract awarded by Bldg. Com. of School Bd. for erecting the Warsaw School to Ohio Bldg. & Constr. Co., 1434 Main St., at $129,097.

Bd. Educ. has decided to erect a school on site of present Hoffman School, on Woodburn Ave. New building to contain 16 rooms, gymnasium and auditorium.

Cleveland, O.—Bids about to be received by Bd. of Education for erection of school on Central Ave.; cost reported to be $175,000.

Bids will be called for about May 15 for the erection of proposed school at Almira Ave.; cost $200,000.

★Contract for masonry on school at E. 123d St. and St. Clair Ave. has been awarded to Reaugh Constr. Co., Garfield Bldg.

Cleveland, O.—Reported tentative plans being prepared by W. R. McCornack, Archt. of Bd. of Educ. for a high school of commerce and an administration building contemplated in downtown district; probable cost $1,000,000.

Columbus, O.—Bids desired until May 18 by Bd. Trus., Ohio State University, to furnish material and construct greenhouses for the Botany and Zoology buildings, Horticulture and Forestry buildings. Jos. N. Bradford, University Archt.

Etna, O.—Bids desired until May 18 by Bd. Educ., Etna Rural School Dist. (S. Parker, Clk.) to furnish material and erect a brick grade and high school. Separate bids desired for ventilating and heating. F. S. Rusk and C. Sheets, Archts., 145 N. High St., Columbus.

Hamilton, O.—Plans have been prepared by Architect Barkman, of Hamilton, for a 2-story brick school, to cost about $25,000.

Lakewood, O.—Bids desired until May 25 by P. T. Harrold, Clk. Bd. Educ., to furnish material and erect an 8-room addition to the Harrison School, and alterations in the old building on Madison Ave. and Quail St. Chas. W. Hopkinson, Archt., Rose Bldg., Cleveland.

Lancaster, O.—Bids will be opened May 17 for erecting city hospital to cost $50,000 from plans prepared by Wilbur T. Mills, 40 N. High St., Columbus.

Lisbon, O.—Bids desired May 10 by J. T. Kennedy, Clk. Bd. Educ., for purchase of $70,000 bonds, to be used for erecting high school, from plans of F. L. Packard, of Columbus.

★**Ravenna, O.**—Contract for erecting the consolidated school in Ravenna Township awarded by the Township Bd. of Educ. to Loomis Seymour Constr. Co. and P. L. Frank Constr. Co., on a joint bid of $31,113 and for plumbing and sewering to W. J. Scholl Co., of Youngstown, at $2,999.

Springfield, O. — $90,000 school bonds have been sold.

Springfield, O.—Bids desired until May 19 by Bd. Educ. (W. H. Holmes, Clk.), to furnish material and erect a 12-room school (remodeling present county infirmary) in Northern Heights addition to Springfield Robt. C. Gotwald, Archt., Springfield.

Stoneboro, O.—Chas. Owsley of Youngstown engaged to prepare plans for the school to be erected here; cost $24,000.

★**Toledo, O.**—Contract for erecting Nebraska School awarded to A. Bentley & Sons Co., Toledo, at $148,262; heating and ventilating, Robt. Raitz & Co., Toledo, $19,775; plumbing, Larsen & Wood, Toledo, $15,003; (bids opened Apr. 19).

Urbana, O.—Bids desired until May 3 by Robt. G. Duncan, Clk. Bd. Educ., Salem Rural School Dist., Urbana, O., Rural No. 2, for $35,000 bonds issued for the purpose of erecting a high school with auditorium at Kings Creek; also an addition of 3 rooms to present building in Dist. No. 11.

Westerville, O.—Bids desired until May 21 by C. E. Boyd, Clk. Bd. Educ., Orange Township, Westerville, R. R. 3 to furnish material and erect a centralized township high school. Frank L. Packard, Archt., New Hayden Bldg., Columbus.

Xenia, O.—Plans for the school for Cedarville Township are to be prepared by Frank L. Packard of Columbus. The citizens recently voted in favor of $75,000 bonds for this school.

East Chicago, Ind.—Plans being prepared by J. T. Hutton & Son, Hammond, for an addition to the Wm. McKinley School; cost $50,000; and for an addition to James A. Garfield School; cost $15,000.

★**Hammond, Ind.** — Contract awarded Apr. 8 by School Bd. (A. J. Dreesen, Secy.), for erecting Columbia School, to J. H. McClay, Hammond, Ind., for general construction, at $51,300, and to Mathie Bros., Chicago, Ill., for heating, at $9,700. Mac Turner, Archt., Tapper Bldg.

Coldwater, Mich.—Bids desired by Bd. of Educ., May 10, for a new heating and ventilating system for high school, including revisions in the plumbing. Saml. R. Lewis, Consulting Engr., 910 S. Michigan Ave., Chicago, Ill.

Eau Claire, Wis.—J. C. Fennessey, City Clk., writes that the citizens voted to issue $50,000 bonds for erecting city building, from plans of Geo. Awsumb, 14 E. Jackson Boule., Chicago, Ill. Bids for erection, will be received about June 1.

★**Green Bay, Wis.**—Contract for erecting Deaconness Hospital awarded to Appleton Constr. Co., Appleton, at about $65,000.

La Crosse, Wis.—Site selected by Bd. Educ. for $50,000 junior high school.

Madison, Wis.—T. G. Wrighton, Prof. of Military Science at Univ. of Wisconson, writes no appropriation has yet been asked for proposed armory at Camp Randall.

Milltown, Wis.—Bids desired until May 4 by Consolidated School Dist. No. 1 (Mads Banks, Member), to erect a high and grade school, including heating, plumbing, electric work and fixtures. Alban & Lockhart, Archts., Endicott Bldg., St. Paul.

Milwaukee, Wis.—Bids desired until May 6 by Dept. Pub. Wks. (Percy Braman, Deputy Comr.) to erect a municipal hospital for contagious diseases, Mitchell St. and 18th Ave., including heating and ventilation, plumbing, vacuum cleaning system, etc.

Bids desired until May 11 by Frank M. Harbach, Secy. School Dirs., for furnishing material and completing high school now in course of construction on Sherman Boule. and Wright St.

★**Stevens Point, Wis.**—Contract awarded to Wagner & Bauman, Monroe, for erecting the museum academy, to cost $80,000.

Harlan, Ia. — Citizens voted $120,000 bonds for schools—$90,000 for a high school and $30,000 for a grade school.

Independence, Ia.—Bids desired until May 24 by E. A. Bordner, Co. Aud., to furnish material and erect a County Home, including heating, plumbing and electric work. Harry E. Netcott, Archt., Independence.

Carlton, Minn.—Plans for 8-room school are being prepared by E. F. Broomhall, Duluth.

Browns Valley, Minn.—Bids desired until May 8 by C. Thiebaut, Pres. Library Assoc., to furnish material and erect a concrete and stucco public library. E. Hirt, Jr., Archt., St. Cloud.

★**Kenyon, Minn.** — Contract awarded Apr. 13 by Bd. of Educ. Independent School Dist. No. 91, for erecting a high and grade school, to include heating, plumbing, electrical work and fixtures, to Standard Constr. Co., Minneapolis. Alban & Lockhart, Archts., Endicott Bldg., St. Paul.

★**Lamberton, Minn.**—Contract for erecting school awarded to Madsen Bros., of Minneapolis, at $36,962.

★**Madison, Minn.** — Contract awarded Apr. 10 by Bd. Armory Supervisors, at office of Capt. A. M. Larson, Madison, for furnishing material and erecting an armory, to G. Herriges, of Madison.

Mahtomedi, Minn.—Bids desired until May 8 by Bd. Educ. (F. J. Miller, Secy.), for additions to school. Separate bids desired for heating, plumbing and water system.

Redwood Falls, Minn.—Bids desired until May 25 by Bd. Educ. (H. M. Aune, Secy.), for alterations and additions to high school; also separately for heating, plumbing and electrical work. Tyrie & Chapman, Archts., Auditorium Bldg., Minneapolis.

★**St. Paul, Minn.**—Contract awarded Apr. 19 for erecting new Bethel Academy on the Bethel Seminary Campus, to Standard Constr. Co., Minneapolis, at $49,985. Other bidders: Chas. Skooglun, St. Paul, $53,310; E. Bjorklund, St. Paul, $57,255; C. W. Lundquist, Minneapolis, $61,572; Rundquist Bros., St. Paul, $64,950.

★**Virginia, Minn.**—Contract for erecting the parochial school for the parish of Our Lady of Lourdes awarded to General Constr. Co., of St. Paul, at $47,000.

Hays City, Kan.—Plans being prepared for a 3-story coliseum to be erected here with an appropriation of $100,000 made by the State.

★**Horton, Kan.**—Contract awarded Apr. 12 by Bd. of Educ. for erecting a high school, including heating, plumbing, etc., to Scott Bros., Consodia, Kan. J. H. Felt & Co., Archts., Kansas City, Mo.

Beatrice, Neb.—Legislature has appropriated $45,000 for erecting a school building at Inst. for Feeble Minded.

Havre, Mont.—Bids reported desired until May 24 by County Comrs. (J. H. Devine, Clk.) to erect a courthouse and jail. F. F. Bossout, Archt., Havre.

Helena, Mont.—State Bd. of Examiners has arranged for the issue of $100,000 bonds, proceeds to be used to erect additional buildings at State Hospital for Insane at Warm Springs and for buildings at State Tuberculosis Sanitarium at Galen.

★**Douglas, Wyo.**—Contract awarded Apr. 20 for erecting court house to Rogers & Ashton, of Denver, Colo., $31,977. Next 3 lowest bids: J. H. Esmay, Douglas, $32,600; F. H. Cowell, Denver, $32,696; Arvid Olson Co., Denver, $36,483.

Ft. Steele, Ark.—School Bd. has directed Bldg. Com. to direct an architect to prepare plans for the rebuilding of the school destroyed by fire, providing for 12 rooms, and to cost $60,000.

★**Hot Springs, Ark.**—Contracts awarded Apr. 20 for erecting hospital, corps barracks, etc.: Construction proper, Kelly & Baehl, Leavenworth, Kan., $19,180; plumbing and heating, M. B. Sanders, Little Rock, $5,722; electric wiring, Geo. T. Schmelgel, Hot Springs, $718. Capt. Jas. D. Fife, M.C., A.Q.M.

Beaumont, Tex.—Co. Comrs. have approved plans for the 3-story addition to the court house and bids for construction, it is reported, desired May 1; cost $25,000.

Longview, Tex.—Bids desired until June 2 by Jas. A. Wetmore, Acting Superv. Archt., Washington, D. C., for construction, complete (including mechanical equipment, interior lighting fixtures and approaches), of U. S. Post Office at Longview.

San Antonio, Tex.—Co. Comrs. have received plans for the city-county hospital, which is to be 4 stories, reinforced concrete and brick. Bids for construction will be received about May 15.

Wichita Falls, Tex.—Reported bids desired May 5 for erecting 3-story reinforced concrete city and county hospital to cost $50,000. Address City and County Hospital Comn. Field & Clarkson, Archts., Wichita Falls.

Cushing,, Okla.—Citizens voted $50,000 school improvement bonds.

Davenport, Wash.—High School bonds amounting to $40,000 have been sold.

Ellensburg, Wash.—Bids reported desired until May 14 for erecting power plant building. Address City Clerk.

★**Everett, Wash.**—Contract for erecting Commercial High School awarded to Everett Constr. Co., Everett, at about $50,000. E Turnbull, Bank of Commerce Bldg., Archt.

Walla Walla, Wash.—Competitive plans being received by the Sisters of Providence for the $200,000 hospital.

Pendleton, Ore.—Bids reported desired until May 20 by State Bd. Control, Salem, for erecting a 3-story, reinforced concrete wing to Eastern Hospital for the Insane. W. C. Knighton, State Archt., Salem.

★**Portland, Ore.**—Contract for erecting the Kennedy School reported awarded to the second lowest bidder, John Almeter, at $27,785.

Antelope, Cal.—Bids desired until May 8 by Bd. School Trus. of N. Antelope Valley Union High School Dist. (Robt. B. Cameron, Clk.), for erecting a high school and dormitory of reinforced concrete. E. L. Hopkins, Archt., 616 Delta Bldg., Los Angeles.

Hyde Park, Cal.—Bids desired until May 7 by Bd. School Trus. (L. Wilhelm, Clk.) for erecting grammar school buildings. G. A. Howard, Jr., Archt., 711 Grant Bldg., Los Angeles.

Los Angeles, Cal.—Bd. Educ. has accepted plans for the following schools: High school for Garvanza Dist., 4 buildings, estimated at $146,000; Elmore R. Jeffery, Archt., 106 W. 8th St.; Macy St. school, 8 rooms and auditorium, cost $45,000, A. C. Martin, Archt., Higgins Bldg.; Staunton Ave. school, 12 rooms and auditorium, cost $45,000, Hudson & Munsel, Archts., 256 S. Spring St.; 28th St. school, 11 rooms and auditorium, cost $45,000, Eisen & Son, Archts., 206 S. Spring St.; Budlong Ave. school, 12 rooms and auditorium, cost $45,000, Rea & Garstang, Archts.; Western Ave. school, addition, 8 rooms and auditorium, cost $37,500, Krucker & Deckbar, Archts., Los Angeles; 42d St. school, 7 rooms and auditorium, cost $25,000, Kryson & Biggar, Archts.

Los Angeles, Cal.—Competitive plans will be received until 11 A. M. May 6 by Bd. Educ. (Wm. A. Sheldon, Secy.) for 30-room brick and concrete intermediate school on First St. and Vermont Ave., also a 16-room school on 5th St., San Pedro.

Bids will also be received same time and place as above for erecting a brick and concrete school on 66th and San Pedro Sts.; also plumbing in 14th St. intermediate School.

San Diego, Cal.—Allen H. Wright, City Clk., writes no definite plans have been made as yet for city hall, although there has been some talk of constructing a new building.

Salt Lake City, Utah.—At the election held by the Granite School Dist., 3600 State St., Apr. 17, it was voted to issue $100,000 bonds for erecting school.

Woodland, Cal.—Plans approved by Bd. Educ. for the 2 school buildings to cost about $100,000.

Salt Lake City, Utah.—Bids reported desired until May 5 by Bd. Educ., for erecting 2-story, 76x132 ft. school. Probable cost $82,000. Francis Rutherford, Archt., Salt Lake City.

★**Montreal, Que.**—Contract for erecting civic library awarded by Bd. Control to John Quinlan Co., at $445,000.

Hamilton, Ont.—Bids desired until May 4 by S. H. Kent, City Clk., for erecting a hospital (except plumbing, heating and electrical work). Stewart & Witton, Archts., Hamilton Provident & Loan Chambers.

Sandwich, Ont.—Reported a 3-story dormitory and gymnasium costing $60,000 is to be erected at Assumption College.

Calgary, Alta.—Bids reported desired May 25 by R. C. Desrochers, Secy. Pub. Wks., Ottawa, Ont., for erecting a drill hall; estimated to cost $350,000. L. Dowler, Resident Archt., Calgary.

St. Boniface, Man.—Plans for the school to be erected on Youville and Eugenie Sts., to have 12 class rooms, auditorium and gymnasium, costing $120,000, are to be prepared by Henry W. Greene, Winnipeg. Address Pub. School Bd.

PRIVATE BUILDINGS.

Items Arranged Geographically

★**Portland, Me.**—Contract awarded to Googins & Clark Co. of Portland for erecting the Y. W. C. A. building. Geo. Burnham & E Leander Higgins, Archts., 120 Exchange St.

Boston, Mass.—Edison Co. will erect a 12-story storage battery building on Channey St.

Deerfield, Mass. — Pocumtuck Valley Memorial Assoc. will erect a fireproof building. Geo. Sheldon, Pres.

Dedham, Mass.—Plans completed by Jas. C. Hutchinson, Boston, for a brick and concrete Masonic Temple to be erected on Pearl St. by Constellation Lodge A. F. & A. M. and to cost $25,000.

Framingham, Mass.—A new carhouse, machine and repair shops are to be erected by the Boston & Worcester Street Ry. Co. (E. P. Shaw, Jr., Gen. Mgr., Framingham).

North Adams, Mass.—Plans being prepared by J. McArthur Vance, of Pittsfield, for a theater costing $60,000 which North Adams Opera House Co. will erect.

★**Springfield, Mass.**—Contract awarded to D. W. Mellen for making alterations to the Kelsey Bldg. for the Commercial Trust Co. H. L. Sprague, Archt., 310 Main St.

W. H. Carpenter intends erecting on Willington St. a 4-story brick business building, 40 x 100 ft.

Worcester, Mass.—Plans being revised by J. P. Kingston & Son, 518 Main St., for a 3-story garage for the Logan Swift & Brigham Envelope Co.

East Providence, R. I.—Plans being prepared by John F. O'Malley for a brick and stucco church for St. Francis Xavier R. C. Parish. Rev. J. D. Lopes, Rector.

Providence, R. I.—G. Henri Desmond, Boston, Mass., is architect for the Keith Theatre to be erected here at a cost of $400,000.

Enery Bros. of Providence it is reported propose erecting a theatre on Washington St.

Albany, N. Y.—Lutheran Church of the Redeemer, Western and Lake Aves., reported planning erecting a church and parsonage costing $50,000.

The Masonic Lodges are reported to be considering the erection of an addition to the temple on Maiden Lane & Lodge St. Edw. Smyth, 619 Bway., Chmn. Bldg. Com.

★Items marked thus give the names of parties awarded contracts.

★**Beacon, N. Y.**—Contract for the superstructure of the 2-story passenger station for N. Y. Central R. R. awarded to John Thatcher & Son, 60 Park Ave., Brooklyn.

Brooklyn, N. Y.—Plans reported prepared by A. White Pierce, 59 Court St., for a 1-story, 159 x 190 ft., market building to be erected at Flatbush and Tilden Aves. by the Excelcio Bldg. Co. Cost $250,000.

Plans filed for 4-story brick tenement at E. 4th St. and Beverly Rd. for Palm Bldg. Co., cost $65,000; S. Millman, Archt. 1780 Pitkin Ave. 4-story brick tenement at Union St. and Sandford Ave. for Robt. C. Adolph, cost $90,000; H. T. Jeffrey & son, Archts., Richmond Hill.

Plans are being prepared by Danl. G. Malcolm and John P. Benson, 331 Madison Ave., New York, for a brick and limestone theater to be erected at Flatbush Ave. and Courtelyou Rd. at a cost of $225,000.

★Contract for erecting the 1-story moving picture theater at Robinson St. and Nostrand Ave for Glynne & Ward, awarded to McCough & Hoey, 16 Court St. Cost $50,000.

Plans completed by Shampan & Shampan, 772 Bway., Brooklyn, for a 5-story apartment house to be erected on Linden and Flatbush Aves. for F. & W. Baker.

★**Buffalo, N. Y.**—Contract awarded to Warner & Warner, 106 Erie County Bank Bldg., for erecting a stone and stucco residence and garage at Delaware and Cleveland Aves. for Geo. A. Foreman, Fidelity Trust Bldg., Cost $75,000. Green & Wicks, Archts., 110 Franklin St.

Long Island City, L. I., N. Y.—Plans filed for 2-story brick theater to be erected at 10th and Jamaica Aves. for N. Pilnacek, 1404 2d Ave., New York, to cost $75,000. Edw. Hahn, Archt., Bridge Plaza, L. I. City.

New York, N. Y.—Reported Geo. F. Backer, 56 W. 46th St. and Arnstein & Levy, 128 Bway., are interested in the company which intends erecting at southeast corner of 7th Ave. and 49th St. a 16-story office building for use of film and moving picture concerns; cost $750,000.

★**New York, N. Y.**—Contract awarded to Underpinning & Foundation Co., 290 Bway., for foundation work on the 12-story building to be erected at 96th St. and Riverside Drive, known as the "Cliff Dwelling." Foundations will consist of standard Hercules steel piles. Herman Lee Meader, Archt., 2 W. 33d St.

Plans being prepared for the following buildings by Schwartz & Gross, 347 5th Ave., for a 13-story apartment house at West End Ave. and 80th St. for Mayer & Mayer, Inc., 30 W. 29th St. Sommerfeld & Steckler, 31 Union Sq., 6-story apartment house at 213 E. 48th St. for Louis J. Marx, 257 Bway. Chas. B. Meyers, 1 Union Sq., for two 5-story apartment houses to be erected at 179th St. and Audubon Ave., for V. R. Bldg. Corporation, cost $50.000. Tremont Architectural Co., 401 E. Tremont Ave., for 5-story apartment house at 172d St. and Boston Rd. for Cedar Constr. Co., cost $50,000.

Plans filed for following buildings: 6-story brick apartment house at 161st St. and Ft. Washington Ave. for Hudson View Constr. Co., cost $300,000. Harold L. Young, 1204 Bway., Archt. 5-story brick tenement at 72 Vermilyea Ave. for Hyman Berman Bldg. Co., cost $60,000 Sommerfeld & Steckler, 31 Union Sq., Archts. 12-story fireproof store and loft building at 15 W. 36th St. for John Downey, cost $150,000; Peabody, Wilson & Brown, 389 5th Ave., Archts. 16-story fireproof store and factory building at 212 W. 26th St. for Julius M. Cohn, cost $350,000; Schwartz & Gross, Archts., 347 5th Ave. Two 5-story brick tenements at 165th St. and Bryant Ave. for Bryant Ave. and 165th St. Constr. Co., cost $120,000; Kreymborg Architectural Co., 401 Tremont Ave., Archts. Two 5-story brick tenements at Webster Ave. and 182d St for McEvoy & Koester Constr. Co., cost $95,000; Tremont Architectural Co., 401 Tremont Ave., Archt.

Bing & Bing, Park Ave. and 84th St., reported to have secured a site at northwest corner of Park Ave. and 84th St. on which it is proposed erecting a 15-story apartment house costing $1,000,000.

★**Waterbury, L. I., N. Y.**—Contract for erecting residence, garage and stable for Victor Morawetz at a cost of $100,000 reported awarded to Central Bldg. Co., of Worcester, Mass. Delano & Aldrich, of New York, Archts.

★**Yonkers, N. Y.**—Contract for erecting church for Our Lady of Mount Carmel at Park Hill Ave. and Oak Pl. awarded to F. S. Polito Constr. Co., Yonkers. N. Serracino, Archt., 1170 Bway., New York.

Hoboken, N. J.—Plans being prepared by Fagan & Briscoe, 95 River St., for a 4-story apartment house to be erected on Park Ave., for Wm. O'Neil, at a cost of $75,000.

★**Newark, N. J.**—Contract awarded to Essex Constr. Co., 87 Academy St., for a 1-story brick and stucco moving picture theatre to be erected on N. 7th and Orange Sts., for Edw. W. McDonough, 207 Market St.; cost $60,000. H. Baechlin, 665 Broad St., Archt.

★**Union, N. J.**—Contract awarded to De Riso Bros., 217 3d St., Union Hill, for erecting a 2-story cafe, restaurant and store and theatre building at Hackensack Plank Rd. and Bergenline Ave., for Carl F. Michelfelder Enterprise; cost about $100,000. Wm. H. McElfatrick, 701 7th Ave., New York, N. Y., Archt.

Vineland, N. J.—Lowest bid opened recently for erecting 3-story and basement, 50 x 70 ft., stone and terra cotta clubhouse for the Junior Order American Mechanics was submitted by Wilbert Titus, Paulsboro; cost about $30,000. Paul A. Davis, 3d, Philadelphia, Pa., Archt.

Brookville, Pa.—$41,000 has been raised with which to erect a Y. M. C. A. building.

Philadelphia, Pa.—Plans to be prepared by Simon & Bassett, 1112 Chestnut St., for a 12-story office building to be erected at 19th and Chestnut Sts. for the Philadelphia County Medical Society.

★**Reading, Pa.**—Contract awarded to Chas. H. Schlegel, of Mt. Penn, for erecting a 5-story terra cotta building at 750 Penn St. for J. L. Huye, of Lancaster. Cost $40,000.

Wilkinsburg, Pa.—Reported bids desired May 12 by Pennsylvania R. R., Philadelphia, Pa., for erecting the passenger station and platforms of brick, stone, steel and concrete. A. C. Shand, Ch. Engr., Philadelphia.

York, Pa.—A 4-story lodge building is to be erected for the Noble Commandery No. 360 and Chosen Knights No. 174, costing $45,000. M. C. Ness, Secy. Com.

Baltimore, Md.—Reported plans prepared by Parker, Thomas & Rice, Baltimore, for a 22-story office building to be erected at Liberty and Lexington Sts. by the Consolidated Gas, Electric Light & Power Co. and to cost about $1,000,000.

★Contract for the erection of the 4-story Burford apartment house on Charles and 32d Sts. awarded to Edw. Brady & Sons, Baltimore; approximate cost $100,000. Parker, Thomas & Rice, Archts., Baltimore.

Charleston, W. Va.—Plans being prepared by A. G. Higginbotham, of Charleston, for a 3-story brick and stone fireproof apartment house to be erected by W. S. Mason at Quarrier and Brooks St.; cost $50,000.

Morgantown, W. Va.—Bids desired until May 4 by the Masonic Temple Com. (P. C. White, Secy.), for erecting Masonic Temple; also separate bids for heating, plumbing and wiring. John H. Harmon, Archt., Uniontown, Pa.

★**Durham, N. C.**—Contract for erecting First Presbyterian Church awarded to J. A. Jones of Charlotte; cost $80,000. Milburn Heister & Co., of Washington, D. C., Archts.

Canal Dover, O. — Grace Lutheran Church intends erecting a $50,000 edifice.

Canal Dover, O.—Grace Lutheran Church intends erecting a $50,000 edifice. Rev. B. W. Ziegler, Pastor.

Columbus, O.—Plans being prepared by W. T. Mills, Columbus, for a 10-story hotel to be erected at High and Rich Sts. by McMahon, Ernst & Co.

Marion, O.—Plans are to be prepared by J. Lewis Ellis, for a 4-story brick and concrete building which the Odd Fellows will erect on W. Center and Orchard Sts.

★**Newark, O.** — Contract awarded to Chas. T. Mercer, Zanesville, for erecting a business building on the public square costing $25,000.

★**Springfield, O.**—Contract for erecting building for the Mutual Fire Insurance Co. awarded to Jos. Poss of Springfield.

★**Toledo, O.** — Contract for erecting brick, stone and steel building at Hamilton and Erie Sts. for the International Harvester Co. awarded to Julius Comte & Co., Toledo. Cost $100,000. Devore-Gormley Co., Nasby Bldg., Archts. and Engrs.

Ft. Wayne, Ind.—Trinity German Lutheran Church will erect a $30,000 edifice on Huffman St. and St. Mary's Ave. Rev. Gustave Doege, Pastor.

Delray (P. O. Detroit), Mich.—Plans prepared by Varney & Varney, Detroit, for a 3-story steel, brick and Bedford stone lodge building to be erected at Fort St. W. and Rademacher Ave. for the Delray Lodge No. 177, Knights of Pythias, of the 18th Ward, and to cost $50,000. Wm. J. Halligan, Member Bldg. Com.

Detroit, Mich.—Plans being prepared by Mildner & Eisen, Hammond Bldg., for a 3-story building which Voigt Brewing Co. will erect on Bagley Ave. and Clifford St.

Plans approved for 19-story building to be erected on Washington Boule. by the Gray Estate Co. Cost $75,000.

Evanston, Ill.—The Masons propose erecting a $30,000 temple.

★**Rock Island, Ill.**—Contract for erecting the Weishar flats at 20th St. and 8th Ave. for J. A. Weishar awarded to Herman Hansen, at about $26,000.

Taylorville, Ill.—Plans completed for the station to be erected here by Chicago Illinois Midland Ry. (F. S. Peabody, Vice-Pres. and Gen. Mgr., Chicago). Cost, $25,000.

★**Cedar Falls, Ia.**—Contract awarded by Trus. Zion Evangelical Church to G. L. Smith, of Waterloo, for erecting a church on 9th and Clay Sts. at a cost of about $30,000; heating and plumbing to L. M. Smith, of Cedar Falls.

Des Moines, Ia.—Plans prepared by Proudfoot, Bird & Rawson, Des Moines, for the 13-story fireproof building to be erected at 713 Locust St. for the Register and Leader Co.

Mason City, Ia.—Western Electric Telephone Co. reported to have secured a site on which to erect a 2-story building costing $125,000.

Duluth, Minn.—W. F. King intends erecting on Jefferson and 18th Sts. a 5-story apartment house, to cost $100,000. Vernon J. Price, Archt., Palladio Bldg.

Lindstrom, Minn.—Bids desired until May 15 by Lindstrom Creamery Co. (J. L. Andrew, Mgr.) to furnish material and erect a creamery. Richd. W. Swanson, Archt., Dassel.

Minneapolis, Minn. — Horace S. and Woodbury S. Andrews reported to be taking steps to erect at 6th Ave. S. and 4th St. a concrete building costing $75,000, and at 6th St. and 5th Ave. a 3-story building costing $35,000.

Wichita, Kan.—Knights of Columbus propose erecting a 3-story lodge building costing $30,000.

Lewistown, Mont.—Plans being prepared by Linke & Haire, Billings, for the R. C. Church, to cost $85,000.

St. Louis, Mo.—Plans completed for a 5-story club house to be erected at Grand Ave. and West Pine Boule. by St. Louis Lodge No. 3 of the Loyal Order of Moose. Cost reported at $500,000.

Beaumont, Tex.—Improvements costing $33,000 are to be made to the depot of the Santa Fe R.R. (C. F. W. Felt, Ch. Engr. System, Chicago, Ill.).

★**Dallas, Tex.**—Contract for erecting City Temple for the First Presbyterian Church at Akard and Bullington Sts. and Patterson Ave., awarded to Buchanan & Guilder, Dallas, at about $200,000. C. D. Hill & Co., Dallas, Archts.

★**Fort Worth, Tex.**—Contract reported awarded to Bruce Bldg. Co. for erecting a 6-story concrete building at 6th and Main Sts. for the Ft. Worth Club at a cost of $180,000.

★Contract for erecting fireproof school for Masonic Orphans' Home awarded by Bd. Trus. to A. W. Flint, of Ft. Worth, for general construction; heating, Kinnison Bros., Dallas; plumbing, McDonald Blevins, Ft. Worth; cost $75,000.

★**Houston, Tex.**—Contract for erecting Y. M. C. A. building awarded to Jeffers Bros.

San Antonio, Tex.—Plans being prepared by Alfred Giles, San Antonio, for a reinforced concrete theater, seating capacity 1000, to be erected on W. Houston St. for Max Oppenheimer.

★**Seattle, Wash.** — Contract reported awarded by New Auditorium Co. to Franklin Eng. Co., Hoge Bldg., for erecting a 1-story, 119 x 280 ft., ice skating rink at 14th Ave. and Jefferson St. Cost $100,000.

Contract to be let by B. M. Priteca, Archt., Empire Bldg., early in May for erecting a theater for the Coliseum Amusement Co. at 5th Ave. and Pike St., to be reinforced concrete, steel and terra cotta, and cost $300,000.

Plans prepared by H. Ryan, Northern Bank Bldg., for an auditorium to be erected at a cost of $100,000 by the New Auditorium Co., at Marion and 10th Sts.

★**Spokane, Wash.**—Reported contract for erecting 7-story fireproof building on site of Mohawk Bldg. recently destroyed by fire, has been awarded to Sound Constr. & Eng. Co., Lowman Bldg., Seattle. Cost about $150,000. John K. Dow, of Spokane, Archt.

Portland, Ore. — Reported tentative plans are to be prepared by Ellis F. Lawrence, Chamber of Commerce Bldg., and Wm. G. Holford, Assoc. Archts., for a club house which Irvington Club intends erecting on Thompson and E. 22d Sts., at a cost of about $120,000.

★Contract for erecting 4-story brick and mill constructed building at Bway. and Davis Sts. for Gay Lombard awarded to A. C. Meyer, Portland; cost $40,000.

★**Fresno, Cal.**—Contract awarded to Frank Rehorn, of Fresno, for erecting the Elks Hall at $62,000.

Salt Lake City, Utah.—Parkinson & Bergstrom, of Los Angeles, Cal., prepared plans for 24-story building to be erected by Deseret Natl. Bank at Main and 1st S. Sts. at a cost of $1,000,000.

NEW INDUSTRIAL PLANTS.

See also "Private Buildings."

Items Arranged Geographically

★**Nashua, N. H.**—Contract for erecting 9-story, 160 x 320-ft. reinforced concrete warehouse for Nashua Mfg. Co. awarded to Turner Constr. Co., Prudential Bldg., Buffalo. C. R. Makepeace, Engr. and Archt., Butler Exchange Bldg., Providence, R. I.

★**Chicopee Falls, Mass.** — Contract awarded to Fred T. Ley, of Springfield for erecting a 6-story brick 30x50 ft. addition to the factory of the Fisk Rubber Co.

Pawtucket, R. I.—The Rhode Island Textile Co. is having plans prepared for a factory to be erected on Dartmouth St.

Albany, N. Y.—Reported bids desired by Archt. D. Stuart Douglas, 100 State St., for a 2-story 100x150 ft. addition to factory of B. Payne Sons Tobacco Co., 915 Bway. and alterations to present factory; cost $45,000.

★**Ballston Spa, N. Y.**—Contract awarded to Lewis & Burroughs Co., Inc., Schenectady, for erecting a 1-story and 2-story factory 155x56 ft. 80x14 ft. and 90x64 ft. for the National Mils. C. G. Van Rensselaer, Schenectady, Archt.

★**Buffalo, N. Y.**—Contract awarded by Sowers Mfg. Co., to Chas. Berricks Sons, 1151 Main St., for erecting an addition to the factory at 1300 Niagara St., 60x54 ft.

★**Hammondsport, N. Y.** — Contract awarded by Curtis Aeroplane Co. to Corning Bldg. Co., Corning, for erecting 2-story and basement machine shop, 41 x 130 ft., at their plant.

Jamestown, N. Y.—F. P. Shelden & Sons, Industrial Trust Bldg., Providence, R. I., are preparing plans for a manufacturing plant to be erected by the Curney Ball Bearing Co.

Port Chester, N. Y.—Reported chemical laboratories at Wilfred Hall destroyed by fire are to be rebuilt at once at a cost of $40,000.

★**Rochester, N. Y.**—Contract awarded to A. Frederick & Sons, Rochester, for erecting a printing building on Elizabeth St., 90x100 ft. 2-story and basement for Henry Connolly Co.; cost $32,000; McCord & Ives, Archts., Powers Bldg.

Troy, N. Y.—Plans completed by E. W. Loth, 253 Bway., for an addition, 60 x 65 ft., to the machine shop at 486 8th St. of H. G. Hammeth.

★**Camden, N. J.**—Contract awarded to Wm. Steele & Sons Co. of Philadelphia, Pa., for erecting a 4-story brick, reinforced concrete and steel 70x200 ft. factory for the Keystone Leather Co.

Harrisburg, Pa.—Reported bids desired May 3 by Day & Zimmerman, Archts. and Engrs., Philadelphia, Pa., for erecting a manufacturing plant for the W. O. Hickok Mfg. Co., to be a 1 and 2-story brick, steel and concrete, 150 x 263 ft., building, including heating and sprinkling system.

Baltimore, Md.—Carper Automatic Bottling Machine Co. incorporated, with Henry L. Brack, Pres., and Albert A. Carper, Gen. Mgr., for the purpose of erecting a plant for manufacture of bottling machines and crowns.

Atlanta, Ga.—Reported W. A. Williams, designer and manufacturer of the Independent Motor Car, of Lima, O., is taking steps to transfer the plant to this city.

West Point, Ga.—Reported Geo. H. Lanier is interested in the company which intends erecting a cotton mill here costing $500,000.

Yolande, Ala.—Yolande Coke & Coal Co. reported intends making improvements costing $500,000.

Cleveland, O.—A 2-story brick, steel and concrete steel barrel factory is to be erected by the Hydraulic Pressed Steel Co. at 3152 E. 61st St., at a cost of $25,000.

Plans prepared by Fox & Osborn, 1602 Woodward Ave. for a 3-story brick, steel and frame factory to be erected at 952 E. 72d St. for Bryant Heater Mfg. Co. to cost $50,000.

Cuyahoga Falls, O.—Reported Falls Rubber Co., 2001 Euclid Ave., Cleveland, will erect a 3-story steel and brick factory adjoining present manufacturing plant. Ernest McGeorge, Leader News Bldg., Cleveland, Archt.

St. Cloud, Minn.—Reported Geo. Tileston Mill, destroyed by fire, is to be rebuilt by the Northern Flour Mills Co., of Minneapolis; probable cost $60,000.

Portland, Ore.—Reported Comrs. of Pub. Docks (G. B. Hegardt, Ch. Engr.) are considering constructing a public grain elevator costing $275,000 to $500,000. An election is to be held in June to vote on issuing $900,000 bonds for elevator, site, etc.

Plans are to be prepared by MacNaughton & Raymond, Title and Trust Bldg., for 3 additional stories reinforced concrete to the building of the Marshall Wells Hardware Co. at a cost of $70,000.

★**The Dalles, Ore.**—Contract awarded to Frank Leonard of Portland, for erecting a plant for Libby, McNeil & Libby, to cost $60,000. C. J. Crandall of The Dalles, Archt.

Chatham, Ont.—Reported site secured on which the Dominion Sugar Co. of Wallaceburg intends erecting a sugar beet factory costing $1,000,000.

★**Ft. William, Ont.**—Contract awarded by the Dwyer Elevator Co., of Ft. William, to D. A. Gordon, of Ft. William, for an addition to the grain elevator; it will be of reinforced concrete and will increase the storage capacity from 100,000 to 250,000 bushels.

★*Items marked thus give the names of parties awarded contracts.*

MISCELLANEOUS.

See also "Hydraulic Construction and River Improvements."

Items arranged Geographically

Filling, Etc.—New York, N. Y.—Bids desired until May 7 by Wm. Williams, Comr. Water Supply, Gas and Electricity, to furnish material and complete abandoned contract for filling, grading for filling, grading, soiling and seeding grounds owned by city between Sedgwick Ave. and N. Y. C. & H. R. R.R. at High Bridge Bow, Bronx; security $5,000.

Cargo Doors, Philadelphia, Pa.—Bids desired until May 3 by Dept. Wharves, Docks and Ferries (Geo. W. Norris, Secy.), for cargo doors at Southwark Piers, Delaware piers, between Catharine and Christian Sts.

Rock Tunnel—Wilkesbarre, Pa.—Bids desired until May 15 for driving a rock tunnel, minimum cross section to be 7 x 9 ft., with a ditch 2 ft. wide by 2 ft. deep; approximate length of tunnel 19,500 ft. The south portal will be in Buck Mt. vein roadway of Hazle Mines and north portal on Little Nescopeck Creek, near Village of Drums Butler Township. Plans and specifications may be seen at office of Vice-Pres. and Genl. Mgr. Lehigh Valley Coal Co., 139 N. River St., Wilkesbarre. (Advertised in Engineering Record).

Furnishing Stone and Portland Cement—Wilmington, N. C.—Bids desired until May 26 by Maj. H. W. Stickle, Corps Engrs., U. S. A., Wilmington, N. C., for furnishing and delivering about 19,700 tons crushed stone, also same time and place separate bids for furnishing and delivering about 22,000 bbls. Portland cement, both proposals advertised in Engineering Record.

Lighters—Savannah, Ga.—Bids desired until May 28 by Col. W. C. Langfitt, Corps Engrs., U. S. A., Savannah, for furnishing and delivering 2 steel lighters, advertised in Engineering Record.

Cement—Louisville, Ky.—Following are bids opened Apr. 19 by U. S. Engr., Louisville, for furnishing and delivering American Portland Cement for Dam 43, Ohio River (estimated quantity 36,000 bbl.), (a) delivery on U. S. barges on Ohio River at Louisville, Ky., and Dam 43, (b) total cost of this delivery, (c) delivery at U. S. siding at Pilcher, Ky., (d) total cost of C delivery (price given per bbl.): J. B. Speed & Co., 325 W. Main St., Louisville, (a) $1.36, (b) $48,490, (c) $1.52, (d) $54,720. Lehigh Portland Cement Co., Consumers Bldg., Chicago, (c) $1.57, (d) $56,520. The Atlas Portland Cement Co., 30 Broad St., New York, (c) $1.87, (d) $67,320. Kosmos Portland Cement Co., 611 Hall Jones Bldg., Louisville, (a) $1.35, (b) $48,600, (c) $1.53, (d) $55,080. A rebate of 2 cts. for each empty sack returned.

Tunneling Machine — Cleveland, O.—See "Water Works."

Retaining Walls — Chicago, Ill. — See "Sewerage and Sewage Disposal."

Steel Towers—Point Isabel, Tex.—Bids desired until May 29 by H. R. Stanford, Cl., Bureau Yards and Docks, Navy Dept., Washington, D. C., for constructing 2 steel towers for radio station, Point Isabel, according to Spec. 2156.

★**Cement Work—Spokane, Wash.**—Contract reported awarded by Union Stock Yards Co., to C. M. Payne, Spokane, for cement work at the stock yards at $15,000. Work includes paving of floors, shelter pens, etc.

★**Tunnel—Glacier, B. C.**—Contract reported awarded to Foley Bros., Welch & Stewart to Bates & Rogers Constr. Co., Vancouver, for boring 5 miles of the Canadian Pacific Railroad Company's tunnel, at Glacier, for $300,000.

Proposals

For Proposals Advertised see Pages 48, 49, 50 and 51.

WATERWORKS.

Bids Close		See Eng. Record.
May 4.	Pipe, Washington, D. C.	Apr. 17
May 4.	System, Riverside, Wash.	Apr. 24
May 4.	Water Works, Osseo, Minn.	May 1
May 4.	Valves, Etc., Buffalo, N. Y.	May 1
May 4.	Boilers in Pump Station, Toronto, Ont. Adv. May 1.	May 1
May 5.	Centrifugal Pump, Kansas City, Mo. Adv. Mar. 20 to Apr. 24.	Mar. 20
May 5.	Mains, New Ulm, Minn.	Apr. 24
May 5.	Sulphate of Iron, Baltimore, Md. Adv. Apr. 24.	Apr. 24
May 5.	Tank and Tower, Blackduck, Minn.	May 1
May 5.	Pipe, Brooklyn, N. Y.	May 1
May 5.	Pipe, Batavia, N. Y.	May 1
May 6.	Reservoir, Gilbertsville, N. Y. Adv. Apr. 24, May 1.	Apr. 24
May 6.	C.-I. Pipe, Montrose, Colo.	Apr. 24
May 6.	Pump Station, Grand Rapids, Mich.	May 1
May 6.	Meters, Etc., Cleveland, O.	May 1
May 6.	Mains, Chicago, Ill.	May 1
May 6.	C.-I. Pipe and Castings, Newark, N. J. Adv. May 1.	May 1
May 6.	Water works, Ashdown, Ark.	May 1
May 7.	Air Compressors, Lisbon, O. Adv. Apr. 24, May 1.	Apr. 24
May 7.	Pump, Stronghurst, Ill.	Apr. 24
May 7.	Mains, New York, N. Y.	May 1
May 8.	Mains, Cottonwood, Minn.	Apr. 24
May 11.	Well, Nevada, Ia.	May 1
May 12.	Pump, Unit, Ottawa, Ont.	Apr. 24
May 14.	System, Walterboro, S. C.	Apr. 24
May 15.	Pumping Station, Binghamton, N. Y. Adv. Apr. 3 to 17.	Apr. 3
May 15.	System at Naval Radio Sta., San Diego, Cal.	Apr. 17
May 17.	Road at Reservoir, Hartford, Conn. Adv. May 1.	May 1
May 17.	Improv. to Water Works, Bluffton, O. Adv. May 1.	May 1
May 18.	Mains, Rocky River, O.	May 1
May 18.	Improv., Paris, Ill.	May 1
May 25.	C.-I. Pipe, Philadelphia, Pa. Adv. May 1.	May 1

SEWERAGE AND SEWAGE DISPOSAL.

Bids Close		See Eng. Record.
May 3.	Yonkers, N. Y.	May 1
May 4.	Green Bay, Wis.	Apr. 24
May 5.	New Ulm, Minn.	Apr. 24
May 5.	Greece, N. Y.	May 1
May 5.	Long Island City, N. Y.	May 1
May 6.	Fairmont, Minn.	May 1
May 6.	New York, N. Y.	May 1
May 6.	Cleveland, O.	May 1
May 6.	Ashdown, Ark.	May 1
May 7.	American Falls, Idaho	Apr. 17
May 7.	Toledo, O.	Apr. 24
May 7.	Chicago, Ill. Adv. May 1.	May 1
May 7.	London, Ont.	May 1
May 10.	Houston Heights, Tex.	Apr. 24
May 10.	Bridgeport, Conn. Adv. Apr. 24.	Apr. 24
May 11.	Newark, N. J.	Apr. 24
May 11.	Cincinnati, O.	May 1
May 12.	Limon, Colo.	May 1
May 12.	Brooklyn, N. Y.	May 1
May 12.	West Chester, Pa. Adv. May 1.	May 1
May 12.	Siloam Springs, Ark.	May 1
May 12.	Washington, D. C. Adv. May 1.	May 1
May 14.	Walterboro, S. C.	Apr. 24
May 14.	Huntington, N. Y. Adv. Apr. 24.	Apr. 24
May 14.	Milwaukee, Wis. Adv. May 1.	May 1
May 15.	San Diego, Cal.	Apr. 17
May 15.	Olean, N. Y.	May 1
May 15.	South Bend, Ind. Adv. May 1.	May 1
May 25.	Wilkesbarre, Pa. Adv. Apr. 17, May 1.	Apr. 17
May 25.	Easton, Md. Adv. May 1.	May 1

BRIDGES.

Bids Close		See Eng. Record.
May 3.	Media, Pa. Adv. Apr. 17.	Apr. 17
May 3.	Cobleskill, N. Y. Adv. Apr. 17 to May 1.	Apr. 17
May 4.	Sea Isle City, N. J. Adv. Apr. 10 to 24.	Apr. 10
May 4.	Northampton, Mass.	Apr. 17
May 4.	Indiana	Apr. 24
May 4.	Waukon, Ia.	Apr. 24
May 4.	Tulsa, Okla. Adv. Apr. 24, May 1.	Apr. 24
May 4.	Ashford, Wash.	Apr. 24
May 4.	Winamac, Ind.	Apr. 24
May 4.	Sheridan, Cal.	May 1
May 4.	Elkins, W. Va.	Hay 1
May 4.	Grant City, Mo.	May 1
May 5.	Canton, N. Y. Adv. Apr. 17, 24.	Apr. 17
May 5.	Illinois	Apr. 24
May 5.	Ft. Dodge, Ia.	Apr. 24
May 5.	Dayton, Ind.	Apr. 24
May 5.	Converse, Ind.	Apr. 24
May 5.	Cleveland, O.	Apr. 24
May 5.	Fredericton, N. B.	May 1
May 5.	Elizabeth City, N. J.	May 1
May 7.	Dayton, O.	Apr. 17
May 7.	Hollidaysburg, Pa.	May 1
May 8.	Tacoma, Wash.	Apr. 24
May 8.	Tacoma, Wash.	May 1
May 10.	Jasper, Ala.	Apr. 17
May 10.	Struthers, O.	Apr. 24
May 11.	Forest City, Ia. Adv. Apr. 24, May 1.	Apr. 24
May 11.	Washington, Pa.	Apr. 24
May 11.	Forney, Tex.	May 1
May 14.	Easton, Pa.	May 1
May 14.	Indiana	Apr. 24
May 21.	Rome, Ga.	May 1
May 21.	North Platte, Neb.	May 1

PAVING AND ROADS.

Bids Close.		See Eng. Record.
May 3.	Kalamazoo, Mich. Adv. Apr. 24, May 1.	Apr. 24
May 4.	Plymouth, Wis.	Apr. 10
May 4.	Mt. Vernon, Wash.	Apr. 17
May 4.	Lake Charles, La.	Apr. 17
May 4.	Newburgh, N. Y.	Apr. 24
May 4.	Columbus, O.	Apr. 24
May 4.	Ashford, Wash.	Apr. 24
May 4.	Road Roller, Key West, Fla.	Apr. 24
May 4.	Mt. Vernon, Wash.	Apr. 24
May 4.	Jackson, Mich.	Apr. 24
May 4.	La Conner, Wash.	Apr. 24
May 4.	Indiana	Apr. 24
May 4.	Anacortes, Wash.	May 1
May 4.	Massachusetts	May 1
May 4.	Sheboygan, Wis.	May 1
May 4.	Niagara Falls, N. Y.	May 1
May 4.	Jackson, Tenn. Adv. May 1.	May 1
May 4.	Paterson, N. J.	May 1
May 4.	Eldora, Ia.	May 1
May 4.	Brainerd, Minn.	May 1
May 4.	Trenton, N. J.	May 1
May 5.	Albany, N. Y. Adv. Apr. 17 to May 1.	Apr. 17
May 5.	Ann Arbor, Mich.	Apr. 24
May 5.	Illinois	Apr. 24
May 5.	Columbus, O.	Apr. 24
May 5.	Duluth, Minn.	Apr. 24
May 5.	Brooklyn, N. Y.	May 1
May 5.	Long Island City, N. Y.	May 1
May 5.	Cleveland, O.	May 1
May 5.	Baltimore, Md.	May 1
May 5.	Freehold, N. J.	May 1
May 6.	New York, N. Y.	May 1
May 6.	Chicago, Ill.	May 1
May 7.	Toledo, O.	Apr. 10
May 7.	Plymouth, Ind.	Apr. 17
May 7.	Columbus, O.	Apr. 24
May 7.	Bremen, Ind.	Apr. 24
May 7.	Salisbury, Md.	May 1
May 7.	El Monte, Cal.	May 1
May 7.	Kenton, O.	May 1
May 7.	West Palm Beach, Fla.	May 1
May 10.	Bowling Green, O.	Apr. 24
May 10.	Russellville, Ala.	Apr. 24
May 10.	Norwood, O.	May 1
May 10.	Washington, D. C.	May 1
May 10.	Edmonds, Wash.	May 1
May 11.	Albany, N. Y. Adv. Apr. 24, May 1.	Apr. 24
May 11.	Washington, Pa.	Apr. 24
May 11.	Frederick, Md.	Apr. 24
May 11.	Anderson, S. C. Adv. May 1.	May 1
May 11.	Linden, Ala.	May 1
May 11.	Concrete, Wash.	May 1
May 11.	Cambridge, Md.	May 1
May 11.	Forney, Tex.	May 1
May 11.	Elyria, O.	May 1
May 12.	Forest City, Ia.	May 1
May 14.	Toledo, O.	Apr. 17
May 14.	Cincinnati, O.	Apr. 24
May 15.	Newton, Kan.	Apr. 10
May 15.	Baton Rouge, La.	May 1
May 17.	Colfax, Wash.	Apr. 17
May 17.	Kinsman, O.	Apr. 24
May 17.	Hartford, Conn. Adv. May 1.	May 1
May 17.	Franklin, La.	May 1
May 17.	Seattle, Wash.	May 1
May 18.	Columbus, O.	May 1
May 18.	Albany, N. Y. Adv. May 1.	May 1
May 18.	Charleston, S. C. Adv. May 1.	May 1
May 20.	Mansfield, O.	May 1
May 21.	Washington, D. C. Adv. May 1. (2 Prop.)	May 1
May 21.	Albany, N. Y. Adv. May 1.	May 1
May 28.	Hackensack, N. J.	May 1
Jun. 3.	Grinnell, Ia.	Apr. 17
Jun. 7.	Hazlehurst, Miss.	May 1
Jun. 7.	McKinney, Tex.	May 1

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Bids Close.		See Eng. Record.
May 3.	Dredging, New Orleans, La. Adv. Apr. 3, 10, 24, May 1.	Apr. 3
May 4.	Irrigation Work, Provo, Utah	Apr. 17
May 4.	Drainage, Darrow, La.	Apr. 24
May 4.	Canal, Modesto, Cal.	May 1
May 4.	Dredging, Wall, Etc., Philadelphia, Pa.	May 1
May 5.	Lock Machinery, Peterboro, Ont.	Apr. 24
May 6.	Drainage Dist. Work, Chicago, Ill.	May 1
May 7.	Protection Wk., Valleyfield, Que.	May 1
May 10.	Revetment and Dike, Kansas City, Mo. (Two prop.) Adv. Apr. 10 to May 1.	Apr. 10
May 10.	Flumes, Lewiston, Mont.	Apr. 24
May 10.	Levee Wk., Waxahachie, Tex.	May 1
May 12.	Irrigation, Saco, Mont. Adv. Apr. 10.	Apr. 10
May 12.	Needle Valve Outlets, Phoenix, Ariz.	Apr. 24
May 12.	Levee Work, Clarksdale, Miss.	May 1
May 13.	Dredging, Atlantic City, N. J. Adv. May 1.	May 1
May 14.	Ditch, Dyersburg, Tenn.	Apr. 24
May 15.	Dredging, Estherwood, Ia.	May 1
May 15.	Boat Landings, Etc., Kingston, N. Y.	May 1
May 17.	Drainage, Donna, Tex.	May 1
May 18.	Wharf, Dunkirk, N. Y.	May 1
May 18.	Lock Gates for Dams, Wheeling, W. Va. Adv. May 1.	May 1
May 19.	Breakwater, Detroit, Mich. Adv. Apr. 17, 24.	Apr. 17
May 19.	Hull for Dredge, Louisville, Ky. Adv. Apr. 24, May 1.	Apr. 24
May 19.	Irrigation Wk., Payson City, Utah	Apr. 24
May 20.	Breakwater, Marblehead, O. Adv. Apr. 24, May 1.	Apr. 24
May 20.	Crib Work, Detroit, Mich. Adv. Apr. 17, 24.	Apr. 17
May 20.	Dike, Kansas City, Mo. (2 Prop.) Adv. Apr. 24, May 1.	Apr. 24
May 24.	Dike, Kansas City, Mo. (2 Prop.) Adv. Apr. 24, May 1.	Apr. 24
May 24.	Lock, Detroit, Mich. Adv. Apr. 17, 24.	Apr. 17
May 26.	Levee Wk., Memphis, Tenn. Adv. May 1.	May 1
May 28.	Dredge, New York, N. Y. Adv. May 1.	May 1
Jun. 1.	Drainage Ditches, Bartow, Fla. Adv. May 1.	May 1

PUBLIC BUILDINGS AND SCHOOLS.

Bids Close.		See Eng. Record.
May 4.	Rushville, Ill.	Apr. 10
May 4.	Ft. Pierce, Fla.	Apr. 17
May 4.	Wadsworth, O.	Apr. 17
May 4.	Milan, Minn.	Apr. 17
May 4.	Norwalk, Cal.	Apr. 17
May 4.	Columbus, O.	Apr. 24
May 4.	Page, Neb.	Apr. 24
May 4.	Council Bluffs, Ia.	Apr. 24
May 4.	Graysville, Ind.	Apr. 24
May 4.	Milltown, Wis.	May 1
May 4.	Cincinnati, O.	May 1
May 4.	Hamilton, Ont.	May 1
May 5.	Walla Walla, Wash.	Apr. 10
May 5.	Ft. Screven, Ga.	Apr. 17
May 5.	Grants Pass, Ore.	Apr. 17
May 5.	Worcester, Mass.	May 1
May 5.	Grafton, W. Va.	May 1
May 5.	Salt Lake City, Utah	May 1
May 6.	Aberdeen, S. D.	Apr. 10
May 6.	Bonaparte, Ia.	Apr. 17
May 6.	Billings, Mont.	Apr. 24
May 6.	Ithaca, N. Y.	May 1
May 6.	Milwaukee, Wis.	May 1
May 6.	Worcester, Mass.	May 1
May 6.	Glen Gardner, N. J.	May 1
May 6.	Belmont, O.	May 1
May 6.	Los Angeles, Cal.	May 1
May 7.	Seattle, Wash.	Apr. 24
May 7.	Hyde Park, Cal.	May 1
May 8.	New Albany, Ind.	Apr. 10
May 8.	Mahtomedi, Minn.	May 1
May 8.	Brown Falls, Minn.	May 1
May 8.	Chicopee, Mass.	May 1
May 8.	Chicopee, Mass.	May 1
May 10.	Brooklyn Heights, O.	Apr. 17
May 10.	Tampa, Fla.	Apr. 24
May 10.	Lake Helen, Fla.	Apr. 24
May 10.	Cleveland, O.	Apr. 24
May 10.	Richwood, W. Va.	May 1
May 10.	Greenville, S. C.	May 1
May 11.	Corpus Christi, Tex.	Apr. 17
May 11.	Newark, N. J.	May 1
May 11.	Milwaukee, Wis.	May 1
May 12.	Bryan, Tex.	Apr. 10
May 12.	Homestead, Pa.	Apr. 24
May 13.	Park City, Utah	Apr. 10
May 14.	New Haven, Conn.	Apr. 10
May 14.	Aberdeen, S. D.	Apr. 17
May 14.	Eau Gallie, Fla.	Apr. 24
May 14.	Ellensburg, Wash.	May 1
May 15.	San Antonio, Tex.	Apr. 24
May 17.	Concord, N. H. Adv. Apr. 10, 17.	Apr. 10
May 17.	Toledo, O.	Apr. 24
May 17.	Sioux Falls, S. D.	Apr. 24
May 17.	Albany, N. Y.	May 1
May 17.	Lancaster, O.	May 1
May 18.	Laurel, Miss.	Apr. 17
May 18.	Etna, O.	May 1
May 18.	Columbus, O.	May 1
May 19.	Springfield, O.	May 1
May 20.	Pendleton, Ore.	May 1
May 21.	Pittsburgh, Pa. Adv. Apr. 24, May 1.	Apr. 24
May 21.	Westerville, O.	May 1
May 24.	Independence, Ia.	May 1
May 21.	Front Royal, Va. Adv. May 1.	May 1
May 24.	Havre, Mont.	May 1
May 25.	Calgary, Ata.	May 1
May 25.	Lakewood, O.	May 1
May 26.	La Salle, Ill.	Apr. 24
May 26.	Hancock, N. J. Adv. May 1.	May 1
May 28.	Ft. Terry, N. Y. Adv. May 1.	May 1
Jun. 1.	Harrisburg, Pa.	Mar. 13
Jun. 2.	Longview, Tex.	May 1
Jun. 3.	Chillicothe, Mo.	Apr. 24
———	Greenville, S. C. Adv. May 1.	May 1

PRIVATE BUILDINGS.

Bids Close.		See Eng. Record.
May 4.	Morgantown, W. Va.	May 1
May 10.	Charleston, S. C.	Apr. 17
May 12.	Wilkinsburg, Pa.	May 1
May 15.	Lindstrom, Minn.	May 1

MISCELLANEOUS.

Bids Close.		See Eng. Record.
May 4.	Fences for Water Board, New York, N. Y. Adv. Apr. 17.	Apr. 17
May 5.	Castings, Etc., Panama	Apr. 24
May 5.	Squeege Machines and Cranes, New York, N. Y.	May 1
May 5.	Garbage Disposal, Long Island City, N. Y.	May 1
May 6.	Tunneling Machine, Cleveland, O.	May 1
May 6.	Incinerator Plant, Augusta, Ga.	May 1
May 7.	Filling, Etc., New York, N. Y.	May 1
May 10.	Furnishing Willows, New	
May 12.	Street Cleaning, Cincinnati, O.	May 1
	Orleans, La.	Apr. 24
May 13.	Scows, Louisville, Ky. Adv. Apr. 17 to May 1.	Apr. 17
May 15.	Rock Tunnel, Wilkesbarre, Pa. Adv. May 1.	May 1
May 18.	El. Ry., Sec. 2, Route 49, Brooklyn, N. Y. Adv. May 1.	May 1
May 26.	Lighters, Savannah, Ga. Adv. May 1.	May 1
May 26.	Stone and Cement, Wilmington, N. C. Adv. May 1. (2 Prop.)	May 1
May 29.	Steel Towers, Point Isabel, Tex.	May 1

★*Items marked thus give the names of parties awarded contracts.*

New Construction Activities

Shipments of steel and new orders showed a slight decrease in the month of April. The month, however, was more satisfactory than anticipated. Export orders probably amount to 400,000 tons. Contracts taken by the fabricating shops in April fell off 34 per cent to 70,000 tons. However, May orders already in sight for bridge and elevated work total about 20,000 tons. It is estimated that the net earnings of the United States Steel Corporation for the second quarter will reach between twenty and twenty-five million dollars.

Buildings

Fewer large building contracts were reported last week than for the week previous. The largest contract awarded was for $623,000, which will be the cost of the new Schenley high school in Pittsburgh. Bids were opened on a $110,000 school building at Fairmont, W. Va. A building contract for the same amount was awarded in Cleveland. A warehouse at Rochester was contracted for at $130,000, and a theater contracted for at Baltimore will cost $120,000. The contract for a $125,000 hotel at Minneapolis has been awarded. Contracts for the Oliver school in Newark, N. J., totaled $98,000. It is reported that bids are desired on a $200,000 hotel in Utica, N. Y., and on a large school building in Pekin, Ill. In contrast to the small number of jobs on which bids are desired, quite a number of large prospective items of building work came to light last week. These include a $1,000,000 hotel planned at Baltimore, two high schools to cost $500,000 each being planned in Columbus, Ohio, and a $522,000 building proposed for Columbia University in New York City. Three other half-million dollar buildings are proposed, one at St. Paul, one at Milwaukee and one at Birmingham, Ala. A permit for a $225,000 grain elevator has been issued at Buffalo, N. Y. A $275,000 building for the Methodist Book Concern will be built in Chicago. Plans have been prepared for an apartment house in Worcester, Mass., which will cost the same amount. A $300,000 bakery is to be built at Davenport, Iowa, and a steel mill to cost $225,000 is proposed at Battendorf, Iowa.

Bridges and Roads

The burning of the existing Belle Isle Bridge at Detroit has hastened the project for a new $2,000,000 bridge to this island. One hundred thousand dollars has already been appropriated for building a temporary bridge. Bids have been opened at Woodsdale, Ohio, for a $75,000 concrete highway bridge over the Miami River. Low bid opened for the approach fills for the Interstate bridge at Portland, Ore., was $113,000. Bids are asked on considerable highway bridge work, including five steel bridges at Council Bluffs, Iowa, eleven bridges for the State of Michigan, four bridges for the State of Illinois, five bridges at Nebraska City, Neb., and a 460-ft. concrete bridge at Watsonville, Cal.

A number of small road contracts have been awarded by the Massachusetts Highway Commission, and further bids are desired on May 11. Twenty-seven miles of State highways will be let on May 19 in Maine. Four road contracts let and one pending in California total $242,000. Bids are desired for building 174 mi. of road at Danville, Ill. Bids are desired for 50 mi. of road at Franklin, La., and for 125 mi. of road near McKinney Texas. A $118,000 paving contract is to be let at Seattle, and bids are desired on a paving contract in Spokane which will probably cost nearly $200,000. A decision of the Supreme Court of the State of Washington has rendered $126,000 immediately available for State road construction. Reports from several Florida towns indicate over half a million dollars worth of road work contemplated in that State. Six hundred thousand dollars will be spent for paving by the city of St. Paul, and like amount for similar work by Toronto.

Waterworks and Sewers

A $55,000 pumping station has been contracted for at Toledo, Ohio. The contract for a $70,000 dam has been awarded at Salt Lake City. A $590,000 pipe line contract has been awarded at Sacramento, Cal. The construction of the $640,000 filtration plant at Wheeling, W. Va., has been practically awarded so far as the city is concerned, but a bond issue to cover the cost of the plant has not yet been voted. Bids are desired on more than 140 tons of pipe and castings at Plant City, Fla. Bids are desired for constructing a filtration plant at Brockville, Ont. Bids are also asked on a waterworks system at Colo, Iowa. Raymond, Wash., has sold waterworks bonds in the sum of $117,000.

A $70,000 sewer contract has been let at Rochester, N. Y. The lowest bid for sewer work opened in Kenosha, Wis., was $114,000. A $60,000 sewer contract has been awarded at Kent, Ohio, and a similar contract for $42,000 at Little Rock, Ark. Bids are desired by South Bend, Ind., for $50,000 worth of sewer work. Bids are also desired for sewer work at Council Bluffs, Iowa, and bids are desired for constructing a sewerage system and a sewage treatment plant at Rittman, Ohio. The city engineer of St. Paul, Minn., is preparing plans for a $290,000 drainage system. It is estimated that the drainage system proposed for Santa Monica, Cal., will cost $236,000.

Miscellaneous

Plans for a $6,000,000 relocation of the New York Central Railroad to avoid grade crossings at Syracuse, N. Y., have been approved by the State grade crossing commission. It is reported from Youngstown, Ohio, that a proposed $9,000,000 ore railroad on which some construction work has already been done is now fully financed. The $6,000,000 bond issue for starting construction on the Philadelphia subways was passed at the special election on April 29. Levee work to cost $124,000 has been contracted for at Augusta, Ga. A $150,000 dam has been contracted for at Ogden, Utah. The United States Government has awarded a contract for constructing a 150-ton floating crane which will cost $323,000. Bids are desired for contractor's plant by the U. S. Engineer office at Memphis, Tenn. Low bid for furnishing 200,000 tons of riprap stone opened by the U. S. Engineer office at Seattle was $310,000. The Board of Estimate and Apportionment for Brooklyn, N. Y., has appropriated $1,300,000 for building three piers on the South Brooklyn water front. The Mississippi River Commission is reported from Vicksburg to have recommended the appropriation of $1,257,000 for the third Mississippi levee district. The Alberta Hydroelectric Power Company of Calgary, Alta., will shortly contract for the construction of six dams and power houses to cost $2,000,000.

WATERWORKS.

Items Arranged Geographically

★**Boston, Mass.**—Contract has been awarded to John Guarino at $18,330 for laying water pipe in Brighton, Dorchester, Hyde Park, Roxbury and West Roxbury. Bids opened Apr. 13.

Brookline P. O., Boston, Mass.—Plans are being prepared by F. F. Forbes, Supt., for 8,000,000 gal. deferrization plant to be constructed by day labor.

★**Newton, Mass.**—Contract has been awarded by Metropolitan Water and Sewerage Bd., Boston, on bids opened Apr. 26, for laying 8000 ft. c. i. water pipe in Newton, to Andrew M. Cusack, of West Roxbury, at $32,369. Unit figures reported in Eng. Record of May 1.

Bids desired by the Metropolitan Water and Sewer Bd., Boston (Dexter Brackett, Ch. Engr.), until 1.30 p. m. May 10 for an additional 6000 lin. ft. pipe to be laid in Newton.

Salem, Mass.—Bids desired until May 17 by P. J. Kelley, Dir. Pub. Wks., for constructing a covered concrete reservoir of 10,000,000 gals. capacity, advertised in Engineering Record. Wm. S. Johnson, Consulting Engr. 101 Tremont St., Boston. Geo. T. Ashton, City Engr.

Albion, N. Y.—Bids desired May 26 by Edw. S. Eaton, Village Clk., for improvements and extensions to water works, advertised in the Engineering Record. J. F. Witmer, Engrs., Buffalo.

Batavia, N. Y.—Chester & Fleming, Pittsburgh, Pa., are preparing a report and estimates for extensive improvements to the Water Works, also for changes in Sewerage, Pumping Equipment and Electric Light System.

Elmira, N. Y.—The water system was taken over by City May 1 from the Elmira Water, Light & R.R. Co., for $1,500,000 and is now operated by Elmira Water Bd. Harry M. Beardsley, of Elmira, Gen. Mgr.

Contracting News

Of Special Interest to Engineers, Contractors, Builders and Manufacturers of Engineering and Building Supplies

Philadelphia, Pa.—Bids reported desired May 15 by Bureau of Water for furnishing and laying c. i. water pipe about 17,000 ft. 48 in., 3300 ft. 38 in., and 21,000 ft. 24 in. and under. Contract 260.

★**Sykesville, Pa.**—Contract for construction of water works, reported awarded to Curwensville Constr. Co., Clearfield, at $7,739 (bids opened Apr. 12). Engineers, E. W. Hess and A. L. Barton, Deposit Natl. Bank Bldg., Du Bois.

Frederick, Md.—The Mayor and Bd. of Aldermen reported to have decided to lay a new pipe line of 2 miles from Fishing Creek to city, at a cost of $14,905.

Engineer Wm. H. Boardman, of Philadelphia, Pa., reported to have submitted a plan to city, to build 2 storage reservoirs, one with a capacity of 50,000,000 gals. to cost $65,000, the other with a capacity for 30,000,000 gal. to cost $55,000.

Lorton, Va.—Bids desired until May 14 by Comrs. D. C., (Oliver D. Newman, Chmn.) Washington, for furnishing and delivering f.o.b. cars, Lorton, 129 net tons c. i. water pipe, for use at D. C. Workhouse.

Petersburg, Va.—Bids desired until May 17 by J. E. Harvell, Chmn. Water Com., for furnishing and constructing 2 water towers and tanks. R. D. Budd, City Engr.

Ravenswood, W. Va.—Bids desired by Town Council until May 14 for furnishing materials and constructing a water supply system to include 1600 ft. 8-in. c. i. pipe, 30 tons; 9000 ft. 6-in., 150 tons; 7000 ft. 4-in., 71 tons; 6 tons specials; 25 hydrants; valve boxes; 2 Cypress tanks, 1200 bbls., ea.; 4½ yds. concrete foundation for tanks; one 75 to 80 B.H.P. gas engine; 1 triplex pump, capacity 500 gals. per minute; 2 deep well pumps, fitted for 8-in. casing (wells to be drilled by the Town, 65 to 100 ft. deep); 100 water meters for ⅝ in. service connections. Engineers, V. A. Dunbar & Son, 418 Julianna St., Parkersburg. Ira S. Bartlett, Mayor.

Wheeling, W. Va.—H. L. Kirk, Mayor, writes that the city is contemplating the installation of a filtration system, and the voters have selected the Smith slow sand system and will vote on a bond issue of $640,000 to cover cost of same. L. E. Smith, of Charleston, W. Va., inventor of this system, either installs in person his system or lets them by contract. The city would have nothing to do with the selection of contractors to do the work other than to approve those selected by Mr. Smith.

Plant City, Fla.—Bids desired until May 15 by Bd. Pub. Wks., for furnishing water works material as follows: Approximately 35 tons 8-in., 195 tons 6-in. c. i. pipe, 9 tons special castings, 6 8-in., 27 6-in. gate valves and boxes, 17 fire hydrants with 6-in. and 7 with 4-in. inlets. E. W. Mays, Supt. Water Wks.

Bids desired June 5 by Bd. Pub. Wks. (J. L. Young, Chmn.), for furnishing material and machinery for water works improvements, Station Equipment, Plans 1, 2 and 3, including pumping engines, steel storage tank, etc., advertised in Engineering Record. E. W. Mays, Supt. Water Wks.

Belzoni, Miss.—Bids desired until May 18 by Mayor and Bd. Aldermen, (J. Clark, Clk.,) for furnishing and installing approximately 8,000 ft. 4 in. c. i. water mains, valves, hydrants, etc.; 15 4 in. fire plugs with 10 4 in. gate valves; 7,000 lbs. specials (c. i. fittings), 20 2½ in. auxillary gate valves for fire-hose use.

Maryville, Tenn.—Bids desired by W. A. McTeer, City Recorder, until May 10 for the purchase of $55,000 bonds, for construction of water works. Engineer, R. C. Huston, of Memphis.

Memphis, Tenn.—Contract awarded for building reservoir on Bayou Gayoso, between Main and Front Sts. to Koehler Bros., 68 Camp Ave. Memphis, and Fowler Constr. Co., associated, $14,162; (bids opened Apr. 13).

Harrodsburg, Ky.—Dr. R. P. Curry, State Sanitary Engr., Bowling Green, reported to be advising committee on best source of improved water supply.

Cleveland, O.—Bids desired until May 21 by A. R. Callow, Comr. Purchases and Supplies, for furnishing material and constructing c. i. pipe drains for filtration plant at Division Pumping Station.

★Items marked thus give the names of parties awarded contracts.

★**Dayton, O.**—Contract has been awarded for a high service pump at central pumping station with a daily capacity of 3,000,000 gal. to Platt Iron Wks. Co., Dayton, at $11,695. (Bids opened Apr. 16).

Port Clinton, O.—Bids desired until May 10 by Bd. Trus. Pub. Affairs (Geo. F. Buck, Secy.), to furnish and install at Water Works pumping station, a water tube boiler, a pumping engine and surface condenser. Wm. G. Clark, Engr., Toledo.

★**Toledo, O.**—Contract has been awarded to A. Bentley & Sons Co., of Toledo, for construction of superstructure of high pressure fire service pumping station at about $55,000 (bids opened Mar. 31). For other bids see Engineering Record of Apr. 10.

Wadsworth, O.—W. J. Sherman Co., of Toledo, has been retained by village to make a valuation of privately owned water and light plant, with a view to municipal ownership.

Xenia, O.—The Xenia Water Co. has employed Chester & Fleming Pittsburgh, Pa., to prepare plans and specifications for well connections, a temporary pumping station and a 16-in. force main.

East Chicago, Ind.—Bids reported desired until May 7 by Bd. Pub. Wks., for furnishing and installing a centrifugal pump with necessary foundation, etc., at Magoun Ave. Pumping Station. T. Y. Richards, City Clk.

Orion, Mich.—Bids reported desired May 11 by Geo. M. Perry, Village Clk., for constructing a system of water works costing $34,500.

Chicago, Ill.—Bids desired until May 14 by Bd. Local Improv. (Edw. J. Glackin, Secy.) for constructing water supply pipes in portions of N. Mayfield, Luella, Jeffery and Anthony Aves., Crystal, School and several other streets.

Colo, Ia.—Bids desired until May 24 by H. E. Ranson, City Clk., for furnishing material and constructing water works advertised in Engineering Record. Lawrence W. Cox, Engr., Des Moines.

Council Bluffs, Ia.—About $50,000 will be spent by water works Trustees for water works improvements and extension of water mains.

Onslow, Ia.—Bids desired until May 25 by Harry W. Hall, Town Clk., to construct a complete waterworks plant requiring approximately an 8-in. deep well, 200 ft. deep, complete, brick or block pump house, complete deep well pump and piping, steel tank on 80 ft. steel tower, a mile of 4 to 8-in pipe, 12 hydrants 6 valves, etc. Chas. P. Chase, Engr., Clinton. Bids also desired for $8,000 waterworks bonds. For further information address Town Clk.

McKinley, Minn.—Village Council reported to have decided to construct water works, to cost $18,000.

South Stillwater, Minn.—Bids desired May 17 by Oscar Huhnke, Village Recorder, for additions and improvements to the water works system, including concrete reservoir, brick and concrete pump house, pumping machinery with connections, distributing pipe line system approximately 5150 ft. 6, 8 and 10 in. pipe hydrants and specials.

Ceresco, Neb.—Bids desired by City Clerk until May 24 for water works; cost $10,000. Engrs., Grant & Fulton, of Lincoln.

Choteau, Mont.—Bonds in sum of $42,000 reported sold by city for construction of a water works.

Lee Summit, Mo.—Plans being prepared by Henrici, Kent & Lowry, of Kansas City, for water works, to cost $30,000.

Harrison, Ark.—Press reports state that bids are desired by City Clerk for the purchase of $60,000 bonds to be used for improving the water works.

Paragould, Ark.—The Comrs. of Waterworks Improv. Dist. No. 2, reported to have sold $25,000 bonds, proceeds to be used for waterworks for West and South Paragould.

Boswell, Okla.—Bids desired until May 14 by Bd. Town Trus., (R. L. Lowdermilk, Chmn.) for water works material to install plant complete; 100 hp oil engine to be used.

★**Kirkland, Wash.**—Contract awarded for 16,065 ft. 8-in. wood pipe, to American Wood Pipe Co., of Tacoma, and for a tank and pump to J. Erickson, 5812 Woodlawn Ave., Seattle; total cost, $14,000. Engineers, Reitze, Storey & Duffy, Northern Bank Bldg., Seattle.

Raymond, Wash.—Bonds in the sum of $117,000 have been sold, to be used for purchase of water works and making improvements to same. J. D. Henry, City Engr.

Seattle, Wash.—City Council has passed ordinance appropriating $12,000 from water fund for construction of a 24-in. water main through the siphon tunnel at 3d Ave.

Lowest bid opened Apr. 23 by Bd. of Pub. Wks., for construction of a water-main in syphon tunnel in 3d Ave. W., under Lake Washington Canal, reported submitted by T. Ryan, Lowman Bldg., at $13,266.

★**Brawley, Cal.**—Contract reported awarded to H. R. Boynton Co., Los Angeles, at $10,477 for furnishing pipe and to Mesmer & Rice, Marsh-Strong Bldg., Los Angeles, at $3,552 for laying same.

★**Sacramento, Cal.**—M. J. Desmond, City Clk., writes contract was awarded on bids opened Apr. 20 for furnishing and installing riveted steel and c. i. water pipe, valves, hydrants and other appurtenances to Schaw, Batcher Co., Pipe Works, Sacramento, at $593,528.

It is stated that this city will have a single water distributing system instead of a domestic and high pressure fire system, according to a report made to City Comn. by G. H. Wilhelm, who has been employed, with Prof. Charles Gilman Hyde, to pass on plans for water and sewer mains and select a source of water supply for city. They are revising the plans to increase the pressure in the business section from 40 to 45 lbs. to from 75 to 80 lbs., decreasing to from 60 to 65 in the residence district. This pressure in bigger pipes will supply an adequate fire and domestic supply.

Ogden, Utah.—The South Ogden Water Works Cor. reported organized by J. R. Ward of Evanston, Wyo., Luther S. Foss, Hyrum O. Pack, and others, to construct general irrigation system and waterworks, with reservoir, canals, laterals, ditches, pipe lines and other equipment, through which water for irrigation will be supplied to several thousand acres of fertile land on the bench which lies between Washington Heights and the mountains. The company will also supply water to the new Golf and Country Club and to Washington Heights.

Brockville, Ont.—Bids desired until May 17 by G. H. Bryson, Town Engr., to construct a mechanical filtration plant.

Orillia, Ont.—Bids desired until May 17 by F. Gover, Secy.-Treas. Orillia Water, Light and Power Comn. for pumping machinery, to consist of centrifugal pumps, electric motors, electrical equipment, c. i. flanged piping and Venturi meter.

Transcona, Man.—Bids reported desired until May 15 by G. P. Campbell, Secy. Treas. for pumping machinery, including electrical equipment.

Panama.—Bids desired until May 13 by Maj. F. C. Boggs, Corps Engrs., U. S. A., Genl. Purchasing Officer, Panama Canal Comn., Washington, D. C., for Cir. 920-Galvanized sheet iron or steel, c. i. water pipe, flush-pipe, fire hydrants, transformers, generators, etc.

Bids desired until May 20 same place as above for Cir. 823-C. I. Pipe and fittings, motor driven fire and sewer pumps, steel cable, sheet brass, bronze bars, copper tubing, lead pipe, etc.

★**Salt Lake City, Utah**—Following are unit prices of 4 lowest bids opened Apr. 21 for constructing dam at Twin Lakes (bids were received on 2 different types of construction), and contract was awarded on the rubble concrete dam to Jas. Stewart & Co. (Sylvester T. Cannon, City Engr.)

★Rubble concrete dam, Type No. 1, (a) Jas. Stewart & Co., of Salt Lake City and New York, $70,485 (awarded contract); (b) J. P. Moran Contr. Co., Inc., Salt Lake City, $70,600; (c) Sam Williams, Salt Lake City, $74,725; (d) John Shea, Salt Lake City, $82,025.

	(*a)	(b)	(c)	(d)
200 cu. yds. excav. earth and loose rock	$2.25	$1.50	$4.00	$2.00
600 cu. yds. solid rock excav	3.50	4.00	6.40	3.50
20 cu. yds. concrete	15.00	20.00	17.25	13.50
9,100 cu. yds. rubble concr	7.20	7.20	7.41	8.50
1,300 lin. ft. pipe rail., 2 in	1.25	1.06	.93	.85
1 set standard sluice gates complete	490.00	602.00	1,100.00	800.00

Reinforced concrete Ambursen type, and including 5 per cent royalty: (a) Ryberg Bros., Logan, $74,681; (b) Stewart Eng. Cor., New York, $74,996; (c) Sam Williams, Salt Lake City, $78,109; (d) Morrison Kunsden Co., Boise, Idaho. $78,283.

	(a)	(b)	(c)	(d)
500 cu. yds. excav. earth and loose rock	$1.00	$2.25	$4.00	$1.50
500 cu. yds. solid rock	4.25	3.55	6.40	4.00
1,600 cu. yds. reinforced concrete, class A, 1:2:4 mixture, yd.	19.25	19.50	17.25	19.00
2,400 cu. yds. reinforced concrete, class B, 1:3:6 mixture, yd.	14.00	16.00	16.25	16.20
1,225 lin. ft. 2-in. pipe railing	2.00	1.25	.93	1.00
1 set standard sluice gates	1,500.00	450.00	1,100.00	1,000.00
1 trash rack in place	150.00	250.00	350.00	300.00

SEWERAGE AND SEWAGE DISPOSAL.

Items Arranged Geographically

Boston, Mass.—See "Hydraulic Construction and River Improvements."

Fitchburg, Mass.—Bids desired until May 19 by Sewer Comn. (David A. Hartwell, Ch. Engr.) for Bemis Rd. siphon connection with main sewer, consisting of about 2400 ft. 16-in. c.-i. pipe.

Quincy, Mass.—City Council Apr. 27 passed appropriation order of $25,000 for sewer construction.

Greenwich, Conn.—Bids desired until May 24 by Sewer Comrs., Greenwich (Wm. Wilson Heaton, Chmn.) for constructing a sewage disposal works in East Port Chester, Sewer Dist. No. 9, advertised in Engineering Record. Sheldon E. Minor, Engr., Trust Co. Bldg., Greenwich; Clyde Potts, Consulting Engr., 30 Church St., New York.

Hamden, Conn.—Clyde Potts, 30 Church St., New York, preparing plans for sewer system and sewage disposal works.

★**Oaklyn, N. J.**—Contract awarded Apr. 27 for sewer system and disposal plant to Kelly-McFeeley Co., Camden, at $38,799. They bid for 5-in, t. c. pipe 35 cts. to 75 cts., according to depth, 6 to 12 ft.; 6-in, 39 cts. to 75 cts.; 8-in, 46 cts. to $1.30; 10-in., 53 cts. to $2; 12-in., 64 cts. to $3; 12-in. c. i. pipe, 4 to 10 ft. deep, 93 cts. to $2.20; 8 x 5-in. Y branches, 55 cts.; 10x5-in., 75 cts.; 12 x 5-in., $1.05; concrete repaving per sq. ft., 10 cts.; 5-in. t. c. deep cut house connections, 50 cts.; 4-in. w. i. force in sewer trench, 75 cts.; 4, 5, 6, 8 and 10-in. drain tile in broken stone or slag, 15 cts., 18 cts., 20 cts., 30 cts. and 40 cts.; flush tanks type B, 6 to 8 ft. deep, $100; 8 to 10 ft. deep, $110; 10 to 12 ft. deep, $120; manholes per ft. greater than 12 ft., $4; lampholes, ea., $7.50; lumber left in trench per M. ft., $18; timber foundation left in trench, per M. ft., $22; extra excav. and back fill per cu. yd., $1; extra plain concrete per cu. yd., $8; extra reinforced concrete per cu. yd., $12; 4-in. gate valves, $8; 6-in., $12; 8-in., $24; 4-in. valve boxes, $3; 6-in., $3; iron castings per lb., 7 cts.; structural iron work per lb., 4 cts.; 14-in. automatic siphon, $400; stone dry wall for filter bed, per cu. yd., $3.25. Next 3 lowest bids for work complete: M. & T. E. Farrell, West Chester, Pa., $39,450; J. E. Brenneman, Philadelphia Pa., $39,967; Cantrell Constr. Co., Philadelphia, $40,780. Engineers, Remington & Vosbury, Camden.

Palisades Park, N. J.—Bids desired until May 11 by Mayor and Boro. Council for constructing a sedimentation tank of Imhoff type, sludge drying beds and other appurtenances; also a system of sewers consisting of 40,509 ft. 20 to 8-in. pipe sewer and 150 manholes, and siphon under tracks of Northern R. R. Lemuel Lozier, Boro. Engr., Central Boule. and Broad Ave.

Ebensburg, Pa.—Bids desired by President, Boro. Council, until May 24 for construction of sewage disposal plant and approximately 5,000 ft. 15-in. T. C. sewers, advertised in Engineering Record. G. A. Flink, Consulting Engr., Commonwealth Trust Bldg., Harrisburg; J. L. Elder & Son, Boro. Engrs., Ebensburg.

York, Pa.—City Council reported to have decided to issue $100,000 bonds to extend and operate the sanitary sewer system, disposal plant, etc. C. A. Boyer, Supt. Streets and Pub. Improv.

Ravenswood, W. Va.—Bids desired by Town Council until May 14 for furnishing materials and constructing sanitary sewer system to include 3200 ft. 6-in. sewer; 10,450 ft. 8-in.; 1510 ft. 10-in. and 600 ft. 12-in.; 100 ft. 12-in. c. i. pipe for outfall; 5000 ft. 4-in. house connections, about 4 to 7 ft. deep; 120 6 x 4 Y branches; 300 8 x 4 Y branches; 40 10 x 4 Y branches; 15 12 x 4 Y branches; 457 4-in. ⅛ bends; excav. 6 to 12 ft. deep; average depth, 8 ft.; 37 manholes, complete, with cover; 5 lampholes; 4 flush tanks (siphons furnished by the town); 2½ cu. yd. concrete bulkhead; 25 cu. yd. rip-rap protection for outfall. Engineers, V. A. Dunbar & Son, 418 Juliana St., Parkersburg. Ira S. Bartlett, Mayor.

★**Durham, N. C.**—Contract awarded Apr. 28 for constructing 5½ miles vitr. pipe sewers to C. C. Jacob, Durham, at $12,217. Next 3 lowest bids: E. M. Sheflow, Elgin, Ill., $13,938; Mischler & Flynn, Chattanooga, Tenn., $14,775; I. J. Smith Co., Richmond, Va., $17,741. Contract for pipe awarded to Pomona Terra Cotta Co., Pomona, N. C., at $4,564. Wm. M. Platt, of Durham, Engr.

Cynthiana, Ky.—Bids desired until May 10 for constructing 2800 ft. storm sewer. For further information address B. R. Myers, City Engr.

★**Kent, O.**—Contract for constructing sewerage system has been awarded to W. H. Hunt & Son, of Akron, at $59,481. Fred. Bechtle, Village Clk.

Rittman, O.—Bids desired until May 25 by Vance Hickin, Clk. of Village Council for constructing sewerage system in certain portions of the village; also same time and place for constructing sewage treatment plant, both proposals advertised in Engineering Record. W. F. Peters, Engr., Medina, and R. Winthrop Pratt, Consulting Engr., Hippodrome Bldg., Cleveland.

Struthers, O.—Bids desired until June 9 by Jonah Richards, Village Clk. for constructing storm water and sanitary sewers in Sexton St.

Swanton, O.—Bids desired until May 10 by Wm. B. Elwell, Village Clk., to construct Sewer No. 1, Sewer Dist. No. 2. Geo. Champe, Engr., Toledo.

Toledo, O.—Bids desired until June 9 by A. W. Boardman Dir. Pub. Service, for constructing Local Sewers Nos. 1249 and 1252.

South Bend, Ind.—Bids reported desired until May 15 by Veronica Sweeney, Clk. Bd. Pub. Service, to construct sewers in Michigan St.; probable cost $50,000.

Chicago, Ill.—Bids desired until May 14 by Bd. Local Improv. (Edw. J. Glackin, Secy.) to construct tile pipe sewers in portions of Aberdeen, W. Congress and several other streets.

★**Rochester, N. Y.**—Following are unit prices of 4 lowest bids opened Apr. 14 by Bd. Contract and Supply for constructing sewage disposal plant for Brighton Dist.: (a) R. T. Ford Co., $68,049 (awarded contract); (b) Thos. Holahan, $80,241; (c) I. M. Ludington Son, Inc., $86,739; (d) Desiderio & Sattler, $88,686.

	*(a)	(b)	(c)	(d)
500 cu. yds. earth excav. in grading	$0.20	$0.50	$0.40	$0.25
15,000 cu. yds. earth excav. in open trenches and pits	.40	.60	.70	.57
1,300 cu. yds. forming embankment	.15	.20	.25	.30
1,900 lin. ft. timber piles	.40	.61	.40	.43
15 M ft. timber and plank	50.00	50.00	40.00	70.00
3,300 cu. yds. concrete masonry	6.90	8.50	10.00	11.00
24 squares plastering tile or masonry walls, two coats, per 100 sq. ft	6.00	.05	5.00	8.00
12 squares Dennison 8-in. interlocking tile partitions, per 100 sq. ft	25.00	18.00	35.00	4.85
1.2 cu. yds. dimension stone masonry	27.00	20.00	40.00	7.50
58,000 lbs. steel reinforcement	.0325	.05	.025	.05
1,600 lbs. steel work	.0325	.05	.06	.03
9,400 lbs. wrought and cast iron	.06	.06	.05	.05
61 tons c. i. pipe (to furnish)	27.00	24.00	25.00	25.00
8 tons special castings, including pattern and machine work (to furnish)	80.00	100.00	50.00	100.00
102 tons pipe, special castings and valves (to set)	15.50	10.00	10.00	25.00
3,600 lin. ft. 5-in. soil pipe (to furnish)	.28	.30	.14	.10
600 lin. ft. 2-in. soil pipe (to furnish)	.12	.12	.06	.05
2,400 lbs. soil pipe specials complete with bolts, where required (to furnish)	.05	.10	.05	.15
355 lin. ft. 24-in. vitr. tile pipe, including concrete (furnish and lay)	1.35	2.00	1.50	1.25
200 lin. ft. 6-in. vitr. tile pipe, including concrete (furnish and lay)	.22	.50	.20	.20
6,200 lin. ft. 6-in. vitr. tile pipe, with open joints (furnish and lay)	.18	.15	.15	.15
430 lin. ft. 2-in. farm tile, with open joints (furnish and lay)	.06	.03	.03	.03
700 cu. yds. concrete waterproofing (integral)	1.00	.20	.90	1.50
44 cu. yds. clean sand and gravel in sludge bed	2.50	3.00	2.50	1.40
22 cu. yds. fine screened sand in sludge bed	2.50	3.00	2.50	1.50
9,800 cu. yds. broken stone in sludge bed and sprinkling filters	2.40	2.72	3.00	2.70
75 cu. yds. clay puddle in sludge bed	1.00	3.00	3.00	.20
4 20-in. Miller siphons in place, complete, ea	450.00	450.00	450.00	430.00
2 24-in. by 24-in. sluice gates, ea	100.00	145.00	90.00	130.00
4 12-in. by 12-in. sluice gates, ea	50.00	50.00	28.00	75.00
30 5-in. double flange water gates, ea	8.50	11.50	8.00	6.20
3 6-in. double flange water gates, ea	10.50	14.50	10.00	9.80
4 6-in. double hub water gates, ea	10.00	12.00	9.00	9.80
2 8-in. double flange water gates, ea	17.00	22.00	15.00	15.60
620 lbs. brass or bronze fittings and nozzles, ea	.60	.65	.80	.475
34 ½-in. rough glass 26-in. by 26-in., ea	1.25	1.50	1.50	2.00
3 baffle frames complete with baffles for detritus chamber, ea	65.00	22.00	50.00	50.00
3 wooden racks, false bottoms for detritus chamber, ea	28.00	8.00	25.00	6.00
Two doors and windows in pipe gallery (lump sum)	50.00	25.00	30.00	10.00

★*Items marked thus give the names of parties awarded contracts.*

Glencoe, Ill.—Bids desired until May 18 by Bd. Local Improv. for sanitary sewers in Crescent Drive, including 10,588 ft. 8-in. vitr. pipe. Windes & Marsh, Engrs., Winnetka, Ill.

★**Milwaukee, Wis.**—Contracts have been awarded by Dept. of Pub. Wks., Apr. 28, for sewers as follows: To Herman, 965 27th St., 4 contracts at a total of $8,389; F. N. Nakielski, Hawley Road, 1 contract, $9,850, and Geo. E. Zimmerman, 3102 McKinley Boule., 2 contracts, $3,005.

Oconomowoc, Wis.—Bids reported desired until May 21 by Bd. Pub. Wks. to construct sewers in portions of various streets. J. A. Stemper, City Engr.

Kenosha, Wis.—Lowest bid opened Apr. 23 by the Street Assessment Com. for constructing trunk sewers reported submitted by Thornton Bros., of St. Paul, Minn., at $114,678.

Randolph, Wis.—G. R. Bascom, of the University of Wisconsin at Madison, has been asked to advise the city in a preliminary way on sewers and sewage disposal.

Council Bluffs, Ia.—Bids desired May 10 by Chas. J. Duff, City Clk., for 10,022 ft. 6, 8, 10, 12 and 15 in. sewer in portions of Avenues E, F and G, also same time separate bids for 9734 ft. 8, 10 and 12 in. sewer in various alleys.

Hartley, Ia.—Press reports state bids desired until May 18 at office of Town Clk., for constructing sewers in Town of Hartley. Bruce & Standeven, Engrs., Omaha, Neb.

★**Sioux City, Ia.**—Contract for construction of North Riverside storm sewer system reported awarded to Ward & Weighton at about $10,000.

★**St. Paul, Minn.**—Contract reported awarded by Contract Com. of City Council Apr. 19 for Grantham St. sewer to J. J. Connolly at $11,925.

St. Paul, Minn.—City Engr. reported to be preparing plans for the Como-Snelling sewer system to provide drainage for State Fair grounds; cost of project estimated at $289,000.

Valley Falls, Kan.—Bids reported desired until May 12 by Geo. Harman, City Clk., for sewage disposal plant and sewers. Worley & Black, Engrs., Reliance Bldg., Kansas City, Mo.

★**Lincoln, Neb.**—Contract awarded Apr. 27 for constructing sewers to J. M. Deffenbough, Lincoln, at $8,350. Theo. H. Berg, City Clk.

Howard, S. D.—Bids reported desired until May 12 by City Council for $24,000 bonds, proceeds to be used for constructing sewers.

Watertown, S. D.—T. W. Shreiber, City Engr., writes bids are desired until May 17 for the purchase of $88,000 bonds, to be used for construction of a sewer system. Work will include 5,000 ft. 18, 30 and 33 in. pipe sewers and 11,300 ft. of 57, 42 and 36-in. concrete sewers.

★**Little Rock, Ark.**—Contract awarded by Comrs. of Sewer Dist. No. 78, Apr. 24, for constructing approximately 17,700 lin. ft. storm and sanitary sewers, to Merino, Brooks & Burkham, of St. Louis, at $42,000. Ford & McCrea, Engrs., Little Rock.

Paragould, Ark.—Bonds in the sum of $36,000 reported sold to pay for paving street intersections and for storm sewers.

Astoria, Ore.—City Council passed a resolution for constructing 12-in. vitr. pipe sewer on 45th St., 8-in. lateral sewers on Commercial St., etc. Cost about $15,000. Olaf Anderson, City Aud.

Santa Monica, Cal.—Geo. F. Lewis, Engr., employed by city as expert, estimates that a complete storm drainage system for Santa Monica would cost $236,633.

Stratford, Ont.—Bids desired until May 15 by A. B. Manson, City Engr., to furnish and deliver approximately 5460 lin. ft. 48-in. and 6200 lin. ft. 36-in. reinforced concrete sewer tile; also bids for alternative materials.

Toronto, Ont.—Bids desired until May 11 by T. L. Church (Mayor), Chmn. Bd. Control, to furnish material and install a sludge pump and motor for main sewage disposal works, Toronto.

Transcona, Man.—Bids desired until May 15 by G. P. Campbell, Secy.-Treas., for pumping machinery, including electrical machinery. W. M. Scott, Engr., Sterling Bank Bldg., Winnipeg.

BRIDGES.

Items Arranged Geographically

Lawrence, Mass.—Bids desired May 10 by Co. Comrs. at Salem for rebuilding bridge over Shawsheen River at Merrimac St., Lawrence, including removing of old structure, and building in place a reinforced concrete arch 50 ft. clear span and 60 ft. roadway, including granolithic sidewalks and block paved roadway.

Woonsocket, R. I.—City Council appropriated $60,000 for constructing 2 concrete bridges on Hamlet Ave. and for straightening approaches to same also $20,000 for a concrete bridge on Fairmount St.

Le Roy, N. Y.—Bids desired until May 22 by Carlos A. Chapman, Town Clk., for constructing 2 steel girder bridges over Oatka Creek advertised in Engineering Record.

★**New York, N. Y.**—Contract has been awarded by F. J. G. Kracke, Comr. of Bridges, for equipment of the westerly track of the upper decks of Manhattan bridge to Vulcan Rail & Constr. Co., 35 Meserole Ave., Brooklyn, at $148,397 (bids opened Apr. 15). Next 3 lowest bids: North Eastern Constr. Co., $156,342; Chas. Meads & Co., $159,186, and Simon Russek, Inc., $159,241.

★**Philadelphia, Pa.**—Contract awarded Apr. 29 by city for a bridge on line of 58th St. over Philadelphia & Baltimore Central Railroad, to M. & J. B. McHugh, at $12,235. It will be a reinforced concrete arch, 30 ft. wide, 60-ft. span, ornamental balustrade, being an extension on one side of an existing bridge 70 ft. wide.

Reading, Pa.—Bids desired until May 14 by D. K. Hoch, Co. Compt., Reading, for constructing a reinforced concrete bridge over Schuylkill River between Borough of West Leesport and Onteaunee Township.

York, Pa.—Bids desired until May 13 by Co. Comrs. at York, for constructing 5 bridges, four reinforced concrete, one 45 ft. span, two 40 ft. spans and one 18 ft. span, and one stone 35 ft. span.

Birmingham, Ala.—Bd. of Comrs. has instructed City Engineer to prepare ordinance for construction of a reinforced concrete viaduct across railroad on 21st St. bet. 1st Ave. and Ave. A, to be approximately 1000 ft. long. Julian Kendrick, City Engr.

Canton, O.—Plans have been prepared for constructing bridge at 8th St. N. E. for county; estimated cost $16,149.

County Comrs. contemplate rebuilding bridge at Tuscarawas St. W.; cost about $12,000.

Woodsdale, O.—Lowest bid opened by County Comrs. at Hamilton, April 17, for constructing concrete bridge over Miami River at Woodsdale, submitted by Clark White Co., Chicago Ill., at $76,784.

Converse, Ind.—Bids reported desired until May 17 by County Comrs. at Peru for constructing reinforced concrete or steel bridge, 100-ft. span, with reinforced concrete abutments and creosoted block floor over Pike Creek near Converse. J. R. Welch, Engr., Peru.

East Chicago, Ind.—Bids reported desired until May 14 by County Comrs. at Crown Point to construct a Strauss trunnion bascule bridge over U. S. canal at 151st St., East Chicago.

East Gary, Ind.—Bids reported desired until May 17 by Edw. Simon, Co. Aud., Crown Point, to construct steel bridge over Deep River, 3 53-ft. pony spans with concrete abutments at East Gary.

Detroit, Mich.—The Belle Isle Bridge is reported to have been seriously damaged by fire. R. H. McCormick, City Engr.

Plans for a temporary bridge to Belle Isle, to replace burned structure have been approved by Common Council as recommended by Comr. Fenkell, of Dept. of Pub. Wks. In addition to a supplementary appropriation of $100,000 for the temporary bridge, $10,000 has been allowed for erecting lights on old piers to protect navigation from ruins.

An election wil probably be called to vote on reconstructing Bell Isle bridge; the new structure will probably cost about $2,000,000, from plans of Barclay, Parsons & Clapp, 60 Wall St., New York.

Michigan.—Bids desired May 21 by Frank F. Rogers, State Highway Commissioner, Lansing, for constructing trunk line highway bridges including 5 reinforced concrete girder bridges, 2 reinforced concrete arches, 2 riveted pony trusses, 2 riveted pratt truss bridges, ranging in length of span from 32 to 105 ft.

Illinois.—Bids desired by Town Clerks at following places and dates for constructing reinforced concrete bridges:

Until May 8 at Sterling, in Jordan Township, known as Nickerson Bridge, 50 ft. span, 16 ft. roadway, 23,934 lbs. reinforcing steel; cost $2,300. V. N. Taggett, Co. Supt. Highways, Morrison.

Until May 11, at Earlville, in Earl Township, Burlingame Bridge, 42 ft. clear span, 18 ft. roadway, 38,890 lbs. reinforcing steel, cost $2,900; Geo. L. Farnsworth Co. Supt Highways, Ottawa.

Until May 12 at Newton, in Wayne Township, Booker Bridge, span 35 ft., roadway 16 ft., 11,816 lbs. reinforcing steel; cost $1,330. S. A. Connor, Co. Supt. Highways, Newton.

Until May 15 at Media, built in Media Township, Clark's Crossing, Edw. Rankin, Pendarvis and Ross Crossing Bridges; cost of 4 bridges, $1,900. C. R. A. Marshall, Co. Supt. Highways, Stronghurst

Bids desired by Co. Superintendent of Highways for constructing following reinforced concrete bridges according to plans and specifications prepared by State Highway Dept., at Springfield:

Until May 12:

At Brighton, Huebner bridge; span, 34 ft.; roadway, 18 ft.; 24,550 lbs. reinforcing steel; cost $940. Chas. E. Warren, Co. Supt. Highways, Jerseyville.

At Sullivan, 2 bridges in Whitley Township, span 14 and 50 ft.; roadway, 16 ft.; cost for both, $2,460. T. C. Fleming, Co. Supt. Highways, Sullivan.

At Centralia, 3 bridges in Foster Township, spans 8, 16 and 4 ft.; cost for 3 bridges, $1,415. Lee S. Trainor, Co. Supt. Highways, Centralia.

Until May 14:

At Ophiem, bridge in Lynn Township; span, 40 ft.; roadway, 20 ft.; cost, $2,650. Jas. H. Reed, Co. Supt. Highways, Cambridge.

Waxcott, Wis.—Bids reported desired May 11 by G. H. Gregory, Town Clk., for constructing steel and concrete bridge over Eau Claire River.

Council Bluffs, Ia.—City Engineer has been directed to prepare plans for concrete bridge to be constructed over Indian Creek at E. Broadway; cost about $5,000.

★**Marshalltown, Ia.**—Contract awarded Apr. 26 for constructing 26 bridges and culverts, to Cole Bros., Ames, at $14,550. A. W. Dobson, Co. Aud.

Manhattan, Kan.—Bids reported desired until May 20 by County Clerk for constructing 7 reinforced concrete bridges.

Marysville, Kan.—Bids reported desired until May 11 by County Comrs., to construct reinforced concrete bridges as follows: One 110 ft. span in Rock Township; 2 bridges, each a 25 ft. span, in Herkimer Township; a 50 ft. span in Murray Township. A. J. Harvey, Co. Clk.

Beatrice, Neb.—Bids reported desired until May 11 by J. C. Penrod, Co. Clk., for construction and repair of all county bridges during the year.

Nebraska City, Neb.—Bids desired until May 20 by County Comrs. to construct 5 concrete bridges, as follows: A 50-ft. bridge near Dunbar, a 32-ft. bridge 4 miles N. W. of Nebraska City, a 20-ft. concrete bridge 2½ miles south of Nebraska City, a 20-ft. and 16-ft. bridge 2½ miles S. E. of St. Paul. Louis Stutt, County Clk.

Wayne, Neb.—Bids desired by Chas. W. Reynolds, Co. Clk., until May 21, for furnishing material and erecting following bridges: 65 ft. steel span, capacity 20 tons; one 40 ft. girder, capacity 15 tons; one 60 ft. steel span, capacity 15 tons; also same time and place for repair of all bridges for year 1915.

Lisbon, N. D.—Bids reported desired until May 19 by Chas. E. Best, Co. Aud., for 60 ft. steel span, 20 ft. steel approaches and reinforced concrete abutments and wings.

Canadian, Tex.—Citizens of Hemphill County voted $74,000 bonds for constructing bridge over Canadian River.

Oilton, Okla.—The Oil Belt Terminal Bridge over Lagoon Creek has been destroyed by floods.

Portland, Ore.—Bids opened by Interstate Bridge Com., Apr. 26, County Court House, for embankment work and incidental structures, necessary in construction of the Interstate Bridge across Columbia River, between Portland and Vancouver, Wash.: Standard American Dredging Co., Oakland, Cal., $112,988; Pacific Bridge Co., Portland, $139,500; Tacoma Dredging Co., Tacoma, $137,390.

Alaska.—Alaska Roads Comn. contemplates reconstructing Snake River Bridge at Nome, constructing bridge at Chena Slough near Fairbanks, also spending about $265,000 for road improvements throughout the territory.

Bright, Ont.—Bids desired until May 10 by Geo. Oliver, Clk. Township of Blandford, Bright, to construct a 40-ft. steel girder span and also concrete abutments for same. F. J. Ure, Engr., Woodstock.

Toronto, Ont.—The Connaught Bridge at Cambie St. is reported destroyed by fire.

PAVING AND ROADS.

Items Arranged Geographically

Maine.—Bids desired May 19 by State Highway Comn. (Lyman H. Nelson, Chmn.), Augusta, for building 27.07 miles of state highway advertised in Engineering Record.

Massachusetts.—Bids were opened Apr. 27 by Massachusetts Highway Comn. (Wm. D. Sohier, Chmn.) for surfacing sections of highway and contracts have been awarded as follows:

★Rehoboth, 6200 ft., awarded to Herbert E. Cushing, Seekonk, at $7,084.

★Somerset, 7400 ft., awarded to Jos. McCormick, East Providence, R. I., at $9,887.

★Dighton-Taunton, 6100 ft., awarded to H. Flood, Quincy, at $7,710.

★Somerset-Swanson, 8100 ft., awarded to H. Flood, Quincy, at $11,128.

★Beverly, 4700 ft., awarded to J. A. Gaffey, Medford, at $6,783.

★Reading, 8500 ft., awarded to J. A. Gaffey, Medford, $13,220.

Bids desired May 11 by Massachusetts Highway Comn., 15 Ashburton Pl. (F. I. Bieler, Secy.), for constructing State Highways as follows: Falmouth, 17,100 ft. asphalt; Westford, 7000 ft. gravel.

Lawrence, Mass.—It is proposed to pave by day labor about 37,300 sq. yd. granite on earth foundation, 5850 ft. granite curb, cement grout; cost about $142,200. A. D. Marble, City Engr.

Bridgeport, Conn.—Bids desired May 10 by Bd. Contract & Supply for macadamizing with water bound macadam approximately 7500 sq. yds. on Park Ave. and for constructing 2 culverts, one on Barnum Ave. and one on Seaview Ave.

★Contract for paving Artic, N. Main, Pembroke and other streets awarded by city to Warren Bros. Co., Boston, Mass., at $1.20 per sq. yd., for warrenite; total cost about $250,000.

Connecticut.—Bids desired until May 10 at office of Chas. J. Bennett, State Highway Comr., Hartford, for constructing roads in towns as follows:

Greenwich, 8475 lin. ft. bituminous concrete, amiesite or warrenite on the Boston Post Rd.

Westport, 813 lin. ft. brick pavement over a concrete base on the Boston Post Rd.

Simsbury, 5300 lin. ft. bituminous concrete amiesite or warrenite on Main St.

Enfield, widening bridge over Fresh Water Brook, together with grading, etc.

New Haven, Conn.—Bids desired until May 12 at office of F. L. Ford, City Engr., for paving with sheet asphalt over water-bound macadam, portions of East, Court, St. John, Prout and Library Sts., in all 19,898 yds.

Brooklyn, N. Y.—Bids desired until May 13 by Commissioners of Parks, New York City (Cabot Ward, Pres.), for furnishing material and reconstructing the Prospect Park Plaza at 9th Ave. and 15th St., Boro. Brooklyn. Security $4,000.

Canastota, N. Y.—Bids desired until May 12 by E. B. Roberts, Village Clk., for paving, advertised in Engineering Record.

Larchmont, N. Y.—Bids desired until May 11 by Eugene D. Wakeman, Village Clk., for $16,000 bonds, proceeds to be used to pave Larchmont Ave.

★**New York, N. Y.**—Contract for furnishing wood paving blocks to Dept. Bridges awarded to United States Wood Preserving Co., 165 Bway., at $9,448.

Oswego, N. Y.—Bids desired until May 14 by Chas. W. Linsley, Comr. Wks., for vitr. brick paving, advertised in Engineering Record.

Rochester, N. Y.—Common Council is considering paving with asphalt Linden and Berkeley Sts., and with brick Franklin Sq., cost $41,800.

Troy, N. Y.—Bids desired until May 14 for 17,000 sq. yds. of macadam resurfacing to include 17,000 sq. yds. of surface cleaned; 5600 gals. cold tar applied; 300 cu. yds. of ¼-in. stone chips; 5000 ft. shoulder replaced. A. E. Roche City Engr.

Elizabeth, N. J.—Bids desired until May 11 by Com. on County Roads of the Bd. Chosen Freeholders, Elizabeth, for resurfacing with stone and Tarvia X Springfield Ave., a distance of about 6709 lin. ft., about 11,197 sq. yds. Tarvia X; also same time and place separate bids for applying a coat of Tarvia "B" Springfield Ave. and Shunpike Road, Township of Springfield, about 14,844 sq. yds. Tarvia B. Jacob L. Bauer, Co. Engr.

Jersey City, N. J.—Contract is about to be let by Bd. Freeholders of Hudson County for paving with Belgian blocks Passaic Ave.

Bids desired until May 13 by Bd. City Comrs. for improving Wegman Parkway with brick; also repaving Communipaw Ave.

Weehawken, N. J.—Bids desired until May 10 by Township Com. (Thos. Carroll, Clk.) for regulating, grading, curbing, flagging and paving on a concrete foundation 18th St. from Park Ave. to Willow Ave.

Westfield, N. J.—Bids desired until May 17 by Town Council for grading and macadamizing portions of Edgewood Parkway, Chestnut and Maple Sts., in all approximately 8885 sq. yds. 6-in. macadam. Chas. Clark, Town Clk.

Wildwood, N. J.—Citizens of Wildwood voted to macadamize all unpaved streets in business section of city.

★**Franklin, Pa.**—Contract awarded Apr. 26, for paving Elk St. with brick about 7950 sq. yds. to North Western Constr. Co., Franklin. J. G. Crawford, City Clk.

Pittsburgh, Pa.—Bids desired until May 14 by Hyatt M. Cribbs, Co. Controller, for furnishing and laying street car tracks and wood block paving on Bridge No. 2 over Allegheny River, at Federal St., Pittsburgh. J. G. Chalfant, Co. Engr.

Reading, Pa.—About $60,000 is to be spent by City for street pavements.

Westville, Pa.—Citizens voted to spend $50,000 for street improvements.

★**Baltimore, Md.**—Contract has been awarded by City Paving Comn. for Contract 113, granite block paving, to Slack & Slack Co., at $38,426. For unit prices of this bid, as opened Mar. 31, see Engineering Record of Apr. 10.

Bids desired by City Paving Com., May 19, for paving as follows Contracts 115 and 116:

★Items marked thus give the names of parties awarded contracts.

Contract 115, Fayette and Holliday Sts., to include 2240 sq. yds. sheet asphalt pav., 180 sq. yds. granite block pav. in railway area, 6 in. concrete base; 440 sq. yds. wood block pav. in railway area, 6 in. concrete base; 330 sq. yds. granite block repaving in railway area, redressed block, cement fill; 820 sq. yds. sheet asphalt pav. in railway area, 1½ in. top, 1½ in. binder, 6 in. concrete; 200 sq. yds. granite block repaving in railway area, 6 in. concrete base, redressed block, asphalt fill; 230 lin. ft. armored concrete curb and circles; 30 lin. ft. unarmored concrete curb and circles; 280 lin. ft. old stone curb redressed and reset; 220 sq. yds. granite block liners along rails, 6 in. concrete base, asphalt fill; 140 sq. yds. vitr. block gutters, 6 in. concrete base; 30 lin. ft. armored concrete curb and circles, 8 in. wide.

Contract 116, Bethel, Block, Philpot, Sharp and Wills Sts., to include 650 sq. yds. granite block repav., 4 in. concrete base; 7400 sq. yds. 6 in. concrete base and 1250 sq. yds. (railway area) 6 in. concrete base; 4000 lin. ft. armored concrete curb and circles and 1200 old stone curb and circles redressed and reset.

Betterton, Md.—Bids desired until May 15 by Comrs. (A. H. Suplee, Secy.), for constructing about 2500 lin. ft. concrete sidewalks and necessary grading for same, advertised in Engineering Record. Kastenhuber & Anderson, Engrs., Easton, Md.

Maryland.—Following are lowest bids opened Apr. 27 by State Roads Comn., Baltimore (Wm. L. Marcy, Secy.), to construct State highways, aggregating 2.36 miles in length and one fill as follows:

Contr. BC-12, Baltimore City, a section of Park Heights Ave., about 1.3 miles. (Sheet asphalt, brick gutters.) American Paving & Contr. Co., Baltimore. (Held up.)

Contr BC-17, Sec. 9, fill for approach to north approach of Hanover St. Bridge, about 23,000 cu. yds. earth excav. Howard Firor, Baltimore, $5,017.

Contr. CE-14A, Cecil County, a section of road through Chesapeake City, about .4 mile. (Concrete.) A. B. Sproul Contr. Co., Peekskill, $5,730.

Contr. Q-11, Queen Anne's County, a section of road through Centerville, about .83 mile in length. (Concrete or amiesire.) Chesapeake Constr. Co., Preston, $16,199.

Towson, Md.—Bids desired until May 13 by County Comnrs. to improve a ½ mile Malvern Ave. with macadam, about 1 mile of Bellona Ave; with concrete, and Chesapeake ave. with concrete; grade Register Ave. about 3500 cu. yds. and Dolfield Rd., about 3800 cu. yds.

Bluefield, W. Va.—Bids reported desired until May 14 by J. T. Akers, City Aud., to pave with bituminous macadam on concrete base and construct concrete curbs and gutters, on S. Bland St., from Oakhurst Ave. to corporate limits.

Yadkinville, N. C.—About $60,000 is to be spent by County Comrs. for road improvements in Yadkin County.

Clearwater, Fla.—About $350,000 will be spent by Pinellas County Comrs. for constructing 7 miles roads.

Green Cove Springs, Fla.—Plans have been prepared by J. B. McCrary Co., Atlanta, Ga., for constructing 30 miles roads, cost $120,000.

Homestead, Fla.—Citizens of southern section of Dade County voted to construct road from Homestead and Florida City to Cape Sable; cost, $100,000. Miami county seat.

St. Petersburg, Fla.—County Bd. Comrs. voted to construct brick road from St. Petersburg to Tarpon Springs; cost about $250,000.

Lake City, Fla.—A. S. Miller, City Engr., writes bids are wanted for about 31,000 sq. yds. of street paving, the class of paving to be adopted after bids are in. Bids will be taken on plain macadam, rocmac, asphaltic concrete, (Topeka) asphaltic macadam, (penetration) Dolarway, Portland cement concrete and sand asphalt.

Huntsville, Ala.—Bids reported desired until May 22 by County Comrs., to grade, drain and macadamize part of Big Cove Rd. Expenditure $4,804. W. S. Keller, State Highway Engr., Montgomery.

Selma, Ala.—Bids reported desired until May 31 by County Comrs. to grade, drain and surface with gravel, part of Selma and Montgomery Rd. near Benton. W. S. Keller, State Highway Engr., Montgomery.

Tuscaloosa, Ala.—Bids reported desired until May 25 by County Comrs., to construct 12 or 15 miles bituminous gravel roads. W. S. Keller, State Highway Engr., Montgomery.

Franklin, La.—Bids desired May 17 by W. H. Latham, Secy. Parish Road Comn., Franklin, for furnishing material and constructing approximately 50 miles surfaced highway.

Wickliffe, Ky.—All bids opened for $300,000 bonds for gravel roads have been rejected by Ballard Fical Court. According to reports new bids will be received.

Williamsburg, Ky.—Citizens voted Apr. 24 to issue $250,000 bonds for constructing roads. Engineer, H. F. Davis, of Williamsburg; H. F. Uhl, City Clk.

Bellevue, O.—Lowest bid opened for paving Wayne St. submitted by Modern Constr. Co., Fremont, at $15,000.

Bexley, O.—Bids desired until May 19 by Chester A. Miller, Village Clk., to furnish material, grade, curb and pave with brick concrete, some form of asphalt or treated macadam, portions of Park View, Pleasant Ridge, Columbia and Drexel Aves., and Town St.

Bucyrus, O.—Bids desired until May 13 by August Broemel, City Clk., for paving W. Mary St., approximately 10,000 sq. yds. and 5000 lin. ft. curb, advertised in Engineering Record. F. L. Niederheiser, City Engr.

Canton, O.—Bids desired May 12 by F. W. Brandt, Clk. Bd. Pub. Service, for improving and paving portions of Bedford Ave. S. W., Kennet Court N. W., Market Ave. S., and other streets.

★**Cincinnati, O.**—Contract awarded Apr. 23 for paving with macadam Hunt Rd. and rebuilding 2 bridges in Sycamore Township, to Van Camp Bros., of Hyde Park, at $14,720.

Bids desired until May 10 by Philip Fosdick, Dir. Pub. Service, for grading, curbing and paving with bituminous macadam Maplewood Ave.

Bids desired until May 13 by Bd. Park Comrs. (Wm. Hodgins, Secy.) for grading, concrete, bitulithic pavement, granite headers, repaving and cement curb for improving Bloody Run Parkway between Lincoln Ave. and Chapel St.

Cleveland, O.—Lowest bids opened Apr. 28 by County Comrs. for paving with brick Berea Rd. from W. 117th St. to W. Madison Rd. Submitted by Baldwin Bros., of Cleveland. W. A. Stinehcomb, Co. Surveyor.

Columbus, O.—Bids desired until May 18 by Director Pub. Service (Paul B. Kemper, Clk.) for improving portions of 15th Ave., 4th, Gay and several other streets. Bids desired on asphalt and brick pavement.

Elyria, O.—Bids desired until May 11 by M. M. Wilson, Dir. Pub. Service, for furnishing material and grading, curbing and paving E. Bridge and E. River Sts. with brick or other material.

★**Marble Cliff, O.**—Contract awarded Apr. 26 for paving with macadam Cambridge Pl., to D. E. Sullivan & Son, Columbus, at $15,183. C. Newhouse, City Clk.

Ohio—Bids desired by Clinton Cower, State Highway Comr., Columbus, May 14, 1915, for the following improvements:

Fulton County, Sec. J., of Archbold-Fayette Road, German Twp. Grading roadway and paving with glutrin bound macadam. Length 5285 ft. Width of pavt. 14 ft. Estimated cost $7,492.

Fulton County, Sec. "H," of Toledo-Angola Road, Royalton Twp. Constructing bridges and culverts, grading roadway and paving with waterbound macadam. Length 13,312 ft. Width 14 ft. Estimated cost $23,226.

Licking County, Sec. "J," of Summit Station Extension Road, Lima Twp. Grading roadway and paving with waterbound macadam; length 2660 ft. Width 12 ft.; estimated cost $3,875.

Meigs County, Sec. "L," of Middleport-McArthur Road, Salisbury Twp. Constructing bridges and culverts, grading roadway and paving with brick. Length 5280 ft.; width 14 ft.; estimated cost $17,282.

Muskingum County, Sec. "N" of Zanesville-McConnelsville Road, Wayne Twp. Constructing bridges and culverts, grading roadway and paving with brick. Length 3,163 ft. Width 16 ft.; estimated cost $11,297.

For Bureau of Maintenance and Repair the following:

Medina County, Sec. "N" of Cleveland-Wooster Road, Medina Twp. Grading roadway and paving with limestone waterbound macadam; length 9800 ft.; width 14 ft.; estimated cost $13,369.

★**Rockford, O.**—Contract for paving with concrete East, 1st, 2nd and Franklin Sts., awarded by Council to Lewis & Burnett.

Struthers, O.—Bids desired until June 9 by Jonah Richards, Village Clk., for brick pavt. on Broad St. and Poland Ave.

Swanton, O.—Bids desired until May 10 by Wm. B. Elwell, Village Clk., for paving Chestnut St. from Main St. to east corporation line of village. Geo. Champe, Engr., Toledo.

Toledo, O.—Following bids opened by Bd. Control for paving as follows: Seaman St., to J. H. Horan, The Valentine, $15,150; Earl St., to Harris & Tansey, Toledo, at $19,330; Fender St., to H. P. Streicher Co., Toledo, at $21,253.

Bids desired until May 18 by A. W. Boardman, Dir. Pub. Service, for improving portions of Bakewell, Cambridge, Hawley, Chase and 2d Sts., Hampton and Parkwood Aves. and Forest Drive, with either vitr. brick, asphalt, wood block or other material.

Warren, O.—About $73,100 bonds have been sold for improving Adams, Mercer, W. Market Sts., N. Park Ave. and Niles Ave., also Summit St. Bridge.

★**Gary, Ind.**—Contracts for paving awarded on Apr. 30, as follows: Gary Constr. Co., Gary, at $4,244, for asphalt macadam, 990.6 sq. yds. at 90 cts.; total, $4,244, and Alley No. 2 W, for Barr brick pavement, 5559.8 sq. yds., at $1.30 per sq. yd.; total, $11,656, and for paving Connecticut St., to Jacob Sensibar, for asphalt macadam, 3219.5 sq. yds., at $1.38 per sy. yd.; total, $11,065. A. S. Francis, City Clk.

★**Idaho.**—Following are bids opened Apr. 26 by State Highway Comn. at Boise, for State Highway construction. (Edw. S. Smith, State Highway Engr.)

★Bannock County, grading 26 miles of Idaho Pacific Highway, Idaho Constr. Co., Boise (awarded contract), $13,197; Fred Nuffer, $14,772; F. Crane, Boise, $14,918; Alley & Nelson, Boise, $17,795.

★Power County, grading 8 miles of Idaho Pacific Highway, Idaho Constr. Co., Boise, $5,597 (awarded contract); Peter Cook, American Falls, Idaho, $5,910; S. A. Forter, American Falls, Idaho, $6,331; F. Crane, Boise, $6,353.

★Power County, grading 24 miles of Idaho Pacific Highway, S. C. Comerford, Boise, $19,697 (awarded contract); S. A. Forter, American Falls, $22,565; F. Crane, Boise, $22,792; C. H. Mull, Twins Falls, $23,087.

Evansville, Ind.—Bids reported desired until May 11 by E. Frisse, City Clk., to improve portions of McCormick and Evans Ave., 4th and several other streets. Bids desired on sheet asphalt, vitr. brick, reinforced concrete or Dolarway pavement. M. Saunders, City Engr.

Indianapolis, Ind.—Bids reported desired until May 14 by Bd. Pub. Wks., for constructing Buedsal Parkway and Boule.

Richmond, Ind.—Bids reported desired until May 13 by Bd. Pub. Wks., for paving with concrete, brick, asphalt or creosoted wood block portions of 3 streets.

Danville, Ill.—Bids desired until May 17 by Bd. Superv. for constructing approximately 174 miles of permanent hard roads in Vermilion County, advertised in Engineering Record. John R. Moore, Co. Clk.

Elgin, Ill.—M. H. Brightman, City Engr., writes that it is proposed to pave N. State St. with brick, about 12,062 sq. yd., on 5-in. concrete base, 3600 ft. curb and gutter, and 2900 ft. of curb; cost, $28,000.

Illinois.—Bids desired until May 20 by State Highway Comn., Springfield (Wm. W. Marr, Engr.), for State aid work as follows:

(All cement to be furnished by State except as noted.)

Saline Co. (nearest P. O., Harrisburg)—Concrete, Sect. A, 7500 ft., cost $10,710.

Edgar Co. (nearest P. O., Paris)—Brick, Sect. C, 1300 ft., cost $2,839.

Tazewell Co. (nearest P. O., Tremont)—Concrete, Sect. E, 1500 ft., cost $2,031.

Pope Co., (nearest P. O., Golconda)—Bridges, cost $1,735.*

Henry Co. (nearest P. O., Cambridge)—Concrete, Sect. B, 7206 ft., cost $16,788; Sect. A, 3660 ft., cost $7,426.

McHenry Co. (nearest P. O., Woodstock)—Concrete, Sect. F, 2640 ft., cost $4,482; Sect. D, 2640 ft., cost $3,887; Sect. E, 2640 ft., cost $4,562; Sect. C, 1080 ft., cost $1,905.

Edwards Co. (nearest P. O., Albion)—Gravel, Sect. A, 2100 ft., cost $2,767.*

Marion Co. (nearest P. O., Iuka)—Bridge, Sect. A, cost $5,950*; (nearest P. O., Kinmundy)—Bridge, Sect. A, cost $1,200*; (nearest P. O., Salem)—Concrete, Sect. C, 4600 ft., cost $5,661.

Schuyler Co. (nearest P. O., Rushville)—Sect. B, road and bridge, cost $1,154.

*No material furnished by the State.

Moline, Ill.—Bids desired until May 12 by Bd. Local Improv. (Lyle Payton, Secy.) for improving the roadway of 19th Ave. by grading, curbing and paving with asphalt about 8900 cu. yds. excav. and grading, 12,810 lin. ft. curbing, 24,375 sq. yds. 5 in. concrete base, 24,700 sq. yds. 1½ in. bonder course, and 24,700 sq. yds. asphalt wearing surface, etc.

Mt. Carmel, Ill.—Bids desired by Guy W. Courter, County Supt. of Highway, until May 11, for 23 miles of gravel road.

Peoria, Ill.—Following are bids opened by Bd. Local Improv., Apr. 26, for resurfacing with asphalt Moss Ave., about 18,360 sq. yds.: (a) Bermuedez, (b) California, (c) Ajax; McCarthy Improvement Co., Davenport, Ia., (a) $23,058; C. E. Williams, Grand Rapids, Mich., (a) $24,418; A. D. Thompson Co., Peoria, (b) $21,431; Canterbury Bros., Peoria, (c) $18,936; J. W. Bushell, (a) $21,917, (b) $20,799.

Lake Geneva, Wis.—Bids desired until May 22 by City Clerk for paving Main St. with Portland cement concrete, including curbing, etc.

★**Milwaukee, Wis.**—Contracts awarded by H. J. Kuelling, Co. Highway Comr., for paving with concrete roads as follows: To Gumz, Gutknecht Wussow, Milwaukee, for Lovers' Lane, at 65 cts. per sq. yd., and Cedarburg Ave., 62 cts. per sq. yd.; grading, 35 cts. per sq. yd., to Raulf Co., of Milwaukee, for Cottrell Ave., at 64 cts. per sq. yd.; grading, 46 cts. per cu. yd.

★**Prairie du Chien, Wis.**—Contract awarded Apr. 23 for 9106 sq. yds. pavement, to Edw. L. Bartlett, Watertown, at $22,849. Other bids: Jas. F. Lee, Dubuque, Ia., $24,804; C. B. McNamarva & Co., Dubuque, $23,337; Thos. E. Wooley, La Crope, $23,237. W. H. Turbitt, City Clk.

New London, Wis.—Bids reported desired until May 10 by C. J. Thompson, City Clk., to construct approximately 1½ miles 16 ft. tarvia pavement on crushed stone on Shawano Rd.

Oconomowoc, Wis.—Bids desired by Bd. Pub. Wks. (Hugo A. Ernst, Chmn.) until May 15, for about 15,000 sq. yd. of 15-ft. paving. Waterbound macadam contemplated. J. Alex. Stemper, City Engr.

★Contract awarded to Nelson-Weber Const. Co., as follows: 10,900 sq. yd. asphaltic concrete paving, using Texico, at $1.30 per sq. yd.; 7100 lin. ft. combined curb and gutter, 54 cts. per lin. ft.; 4000 cu. yd. grading, 35 cts. per cu. yd.; total, $19,500.

★**Sheboygan, Wis.**—Contracts for concrete paving (bids opened Apr. 30) awarded as follows: To John Braun, Sheboygan, Wis., for 15,000 sq. yds. on Erie Ave., at $1.25 per sq. yd.; to Murphy Constr. Co., Manitowoc, 7730 sq. yds. on S. 9th St., $1.29, and 7835 sq yds. on Indiana Ave., $1.40, and to G. H. Stanchfield, Fond du Lac, 7300 sq. yds. on N. 2nd St., $1.29. C. U. Boley, City Engr.

Des Moines, Ia.—Following are bids opened Apr. 28 for paving E. Grand Ave., about 30,647 sq. yds. (price given per sq. yd.): O. P. Herrick, Des Moines, brick, $1.898, or Natural Lake asphalt, $1.78; Jas. Horrabin, Des Moines, for bitulithic, $1.99; H. C. Rankringm, Des Moines, for fiber brick, $1,679, and Jas. McGarry, Chicago, Ill., sheet asphalt (Texaco), $1.605. Horace Susong, City Clk.

Storm Lake, Ia.—Bids desired by J. E. Buland, City Clk., until May 18, for about 50,000 sq. yds. concrete paving on Lake Ave. and 5th St., and 17,400 lin. ft. curb. Engineers, Bruce, Standeven & Boynton, of Omaha, Neb.

Aitkin, Minn.—About $50,000 road bonds have been sold by County Comrs.

Center City, Minn.—Bids reported desired May 17 by A. F. L. Stromgren, Co. Aud., for about 19,865 ft. road work, including clearing, grubbing, turnpiking, constructing corrugated metal culverts, etc., also separate bids same time and place for 3460 ft. of roadwork.

★**Duluth, Minn.**—Contract awarded by City Council for paving Minnesota Ave. with 2-course reinforced concrete, to S. R. Okes Constr. Co., at $52,897.

Lowest bids for grading and macadamizing Highland St. has been submitted by Gilman, Murphy & Patterson, $22,147.

St. Paul, Minn.—About $600,000 will be spent by city this season for paving work. J. E. Carroll, Supt. Construction and Repair Dept.; Aug. Hohenstein, City Purchasing Agent.

Newton, Kan.—Bids were opened Apr. 27 for 33,000 sq. yds. pavement, and the lowest bid received for Natural Lake asphalt (which was the material selected) was submitted by A. Jaicks Co., 29 La Salle St., Chicago, Ill., at $1.18 per sq. yd. Other bids received on this pavement (per sq. yd.): Watts & Ammerman, Concordia, $1.19, and Kaw Paving Co., Topeka, $1.26.

Omaha, Neb.—Bids desired until May 11 by Thos. J. Flynn, City Clk., for improving portions of 45th Ave., Miami, 9th, Francis and several other streets. Bids desired on asphalt, stone, vitr. brick, vitr. block, artificial stone, macadam, creosoted wood block, asphaltic concrete and vertical fibre brick.

Anaconda, Mont.—City Council voted to pave Commercial and Main Sts., cost about $100,000.

Kansas City, Mo.—Bids desired until May 11 by T. C. Harrington, Sec. Bd. Park Comrs., for paving with bituminous macadam St. John Ave. and W. Pennway St., and concrete or bituminous macadam pavt. on roadways, alleyways, on boulevard along 26th St.

Paragould, Ark.—See "Sewerage and Sewage Disposal."

Sherman, Tex.—A. S. Noble, Co. Aud., writes that citizens voted Apr. 17 to issue $900,000 bonds for road improvements.

★**Velasco, Tex.**—Contract awarded Apr. 26 for constructing 12 miles hard surface roads in Dist. No. 8, to Austin & Hudgins, at $64,000. E. P. Hoefle, Attorney Road Dist.

Cathlamet, Wash.—About $75,000 road bonds have been sold by County Comrs.

Colfax, Wash.—Reported plans completed by John H. McCaw, Co. Engr., for constructing 11 miles of highway between Colfax and Pulman, known as Permanent Highway 9A and 9B.

Ellensburg, Wash.—Bids desired until June 7 by Co. Comrs. for grading and graveling Permanent Highway No. 1-A, a distance of 3 miles. Moses M. Emerson, Co. Engr.

Everett, Wash.—Following are lowest bids opened for paving: Polouse Ave., Two Miracle Concrete Constr. Co., Kalispell, Mont., $14,751, Whitman Ave. and N. 2d St. H. L. Wilson, Everett, at $23,090 and $5,622 respectively.

Louis Lesh, City Clk., writes bids desired until May 7 for paving Everett Ave. from Walnut St. to B'way, estimated cost $41,007.

Bids reported desired until May 24 by Thos C. Fleming, Chmn. Bd. Co. Comrs., for constructing Permanent Highway No. 10, the Whitefield Rd.

Kalama, Wash.—Bids reported desired until May 17 by County Comrs. (B. O. Olsen, Clk.) for constructing 6860 lin. ft.

★*Items marked thus give the names of parties awarded contracts.*

concrete road near Woodland, known as Permanent Highway No. 2. Probable cost, $11,000; also improving 5300 lin. ft. road near Carrolls, known as Permanent Highway No. 1, by clearing, grading and surfacing with crushed rock; probable cost $14,000.

Newport, Wash.—Reported bids desired about May 15 by County Comrs. for clearing, grading, grubbing, draining and surfacing with spread gravel and constructing culverts on 1.52 miles Permanent Highway No. 5. H. A. Sewell, Co. Engr.

★**North Yakima, Wash.**—Contract has been awarded for macadamizing 2 miles Naches Valley Highway, to O. F. Leonard, of Seattle, at $13,900. O. E. Brashears, Co. Engr.

Olympia, Wash.—Lowest bid opened for paving with asphalt Dists. 181 and 184 submitted by Independent Asphalt Paving Co., 2601 Railroad Ave., Seattle, at $52,000.

★Contract for paving with asphalt Main St. and Maple Park Ave. awarded to Independent Asphalt Paving Co., Northern Bank Bldg., Seattle, at $46,000.

Seattle, Wash.—Bids desired until May 24 by Co. Comrs., at Seattle, for constructing F. B. Hoit Road, cost about $35,000; also same time and place separate bids for constructing Greenwood Ave. Road, 35,000 sq. yds. one course concrete, and Crawford and Conover Road, being Permanent Highway No. 10. Arthur P. Denton, Co. Engr.

★Contracts for paving awarded by County as follows: Washington Paving Co. Savage-Scofield Bldg., Tacoma the Renton Junction-Orillia Rd. at $53,000, and to S. Normile, Lowman Bldg., the Redmond-Snoqualmie Rd. at $43,400.

Contract is about to be let by Bd. Public Works for paving Utah and Hamlin Sts., cost $118,000.

Spokane, Wash.—Bids desired until May 21 by Co. Comrs. for grading and paving with asphalt macadam, asphaltic concrete, concrete 1 and 2 course, Warrenite, or Warrenite and asphaltic macadam Palouse Permanent Highway No. 12-A, about 116,218 cu. yds. common excav., 14,768 cu. yds. rock excav., culvert pipe, 8, 12, 18 and 24 in. 50,000 lbs., 108,000 sq. yds. pavt., etc. J. W. Strack, Co. Engr.

Tacoma, Wash.—Bids desired until May 20 by Co. Comrs., at Tacoma, for improving Permanent Highway No. 6, a distance of about 1.677 miles, including clearing, grubbing, grading and paving with bitucrete, bitulithic, Warrenite, asphalt, brick, asphaltic concrete, or concrete one or two course.

Vashon, Wash.—Plans have been completed by A. Denton, County Engr. at Seattle, for constructing 6-mile highway in Vashon, cost about $50,000, also for 2-mile road from Dumas Bay to Pierce County Line, cost about $18,000.

Walla Walla, Wash.—Bids reported desired until May 17 by County Comrs. for improving Permanent Highway No. 8, the connecting link in the Inland Empire Highway; probable cost about $50,000. C. F. Dement, Co. Aud.

Washington.—Bids desired May 24 by State Highway Bd. (Wm. R. Roy, Comr.), Olympia, for grading, draining and bridging following roads:

Whitman County, about 4 miles of Empire Highway, from Cashup and Steptoe; probable cost $16,000; and 8 miles from Colfax south; probable cost $31,000.

Lincoln County, about 13.7 miles of Sunset Highway; cost $57,000.

According to recent decision of Supreme Court, appropriating money for highway improvements, work will be immediately ordered by the State Highway Dept. at Olympia (Wm. R. Roy, State Highway Comr.), as follows:

Construction of road between Wenatchee and Waterville, 5 miles, at a cost of $51,400; on this section employment of convict labor is being considered.

Olympic Highway, Mud Bay, to McCleary, 10.85 miles, $38,000.

Pacific Highway, new Nisqualy grade to eliminate steep hill, using in part abandoned Northern Pacific grade, 9.2 miles, $37,000.

California.—Following are bids opened Apr. 26 by State Highway Comn. Sacramento, for state highway work:

★Monterey County, Div. 5, Route 2, Sect. A—Awarded to T. M. Burns, Sacramento, as follows: 14,135 cu. yds. excav. (ordinary, without classification), 50 cts.; 752 lin. ft. 12-in. cor. iron pipe, $1; 40 lin. ft. 18-in., $1; 36 lin. ft. 24-in., $1; 16 cu. yds. cement concrete Class B (culverts and monuments), $10; 4830 cu. yds. cement concrete Class B (pavt.), $4.25; 174 cu. yds. rubbel masonry (retaining walls), $10; 850 lin. ft. guard rail, 30 cts.; 42 monuments (haul and set), ea., $2; total, $30,662. Next 3 lowest bids: Highway Paving & Constr. Co., Palo Alto, $30,830; Petersen & Grier, San Francisco, $34,833; Lon G. Hare, Salinas, $35,558. Engineer's estimate, $45,769.

Monterey County, Div. 5, Route 2, Sect. E—Lowest bidder, Highway Paving & Constr. Co., Palo Alto, as follows: 9900 cu. yds. excav. (ordinary, without classification), 60 cts.; 600 lin. ft. 12-in. cor. iron pipe, 50 cts.; 60 lin. ft. 15-in., 75 cts.; 30 lin. ft. 18-in., $1; 34 lin. ft. 36-in., $1; 53 cu yds. cement concrete Class B (culverts and monuments), $10.50; 7185 cu. yds. cement concrete Class B (pavt.), $6.15; 600 lin. ft. guard rail, 40 cts.; 60 monuments haul and set, ea., $1; total, $51,393. Other bids: Jas. Fitzpatrick, Sacramento, $64,965; W. A. Dontanville, Paso Robles, $90,809. Engineer's estimate, $66,871.

★Monterey County, Div. 5, Route 2, Sect. H—Awarded to Frank L. Smith Co., Eureka, as follows: 89,420 cu. yds. excav. earth, 35 cts.; 4990 cu. yds. excav. loose rock, 38 cts.; 1350 cu. yds. excav. solid rock, 40 cts.; 850 lin. ft. 12-in. cor. iron pipe, 60 cts.; 120 lin. ft. 15-in., 65 cts.; 44 lin. ft 18-in, 70 cts.; 28 lin. ft. 24-in., 80 cts.; 172 lin ft. 30-in., 90 cts.; 35 lin. ft. 36-in., $1; 416 cu. yds. cement concrete Class B (culverts and monuments), $12; 10,620 cu. yds. cement concrete Class B (pavt.), $4.75; 5400 lin. ft. guard rail, 40 cts.; 274 monuments haul and set, ea., $1; total, $92,435. Next 3 lowest bids: Hoffman & McLaren, Oakland, $94,679; Twohy Bros. Co., San Francisco, $98,693; L. F. Gerdetz, San Francisco, $103,207. Engineer's estimate, $108,094.

★Contra Costa County, Div. 4, Route 14, Sect. A—Awarded to Bates, Borland & Ayer, Oakland, as folows: 11,200 cu. yds. excav. (ordinary, without classification), 70 cts.; 350 lin. ft. 12-in. cor. iron pipe, 50 cts.; 130 lin. ft. 15-in., 50 cts.; 50 lin. ft. 18-in., 50 cts.; 10 cu. yds. cement concrete Class B (culverts and monuments), $10; 6150 cu. yds. cement concrete Class B pavt.), $2.75; 9840 lin. ft. guard rail, 30 cts.; 13 monuments haul and set, ea., $1; total, $28,082. Next 3 lowest bids: Twohy Bros. Co., San Francisco, $28,552; Taylor & Bertiner, Los Angeles, $32,098; W. J. Schmidt, Berkeley, $32,138. Engineer's estimate, $34,756.

★Sonoma County, Div. 4, Route 1, Sect. C—Awarded to Twohy Bros. Co., San Francisco, as follows: 31,000 cu. yds. excav. (ordinary, without classification), 48 cts.; 260 lin. ft. 12-in. cor. iron pipe, 30 cts.; 200 lin. ft. 15-in., 35 cts.; 400 lin. ft. 18-in., 50 cts.; 140 lin. ft. 24-in., 60 cts.; 110 lin. ft. 30-in., 70 cts.; 310 cu. yds cement concrete Class B (culverts and monuments), $9; 7100 cu. yds. cement concrete Class B (pavt.), $2.64; 7000 lin. ft. guard rail, 38 cts.; 146 monuments haul and set, ea., $1; total, $39,729. Next 3 lowest bids: Mavin Rock Co., San Anselmo, $40,080; L. F. Gerdetz, San Francisco, $45,858; W. B. Hunt & Son, Alameda, $45,893. Engineer's estimate, $54,332.

California.—Bids desired May 24 by State Highway Comn., Sacramento, for following highway improvements:

Los Angeles County—From Saugus to Castiac, about 4.2 miles, approximately 12,200 cu. yds. excav., 4120 cu. yds. Class "B" concrete paving, iron culverts, etc.

Tehama County, from Proberts to Red Bluff, about 6½ miles concrete paving.

Kings County, Hanford to east boundary, 8.9 miles concrete paving.

Tehama County, Red Bluff to north boundry line, 12.7 miles grading.

Bryson City, N. C.—Bids desired until May 10 at 2 P. M. by Swain County Highway Comrs. for grading approximately 8 miles of highway. T. M. Howerton, Engr., Bryson City.

Los Angeles, Cal.—Bids reported desired until May 17 by Bd. Superv. for improving a portion of Laballona Road in County Dist. No. 4, approximately 4050 cu. yds. excav., 13,440 lin. ft. shaping roadbed and 8960 tons broken stone.

San Jose, Cal.—About 10 miles of streets to be paved from time to time, including William, Reed, San Antonio, etc., with asphalt on concrete, concrete foundation and concrete curb. M. Maggini, City Engr.

Alaska.—See "Bridges."

★**Ottawa, Ont.**—Contracts awarded for asphalt pavt. as follows: To Ottawa Constr. Co., Central Chambers, Ottawa, for Bank St., Echo Drive to Grove St., at $25,158, and Centre St., Adelaide to O'Connor St., at $1,496; and to Union Constr. Co., Bank St., Chambers, Ottawa, for Nicholas St., at $13,377; Hurdmans Rd., at $29,525; Manor Ave., at $3,988.

Toronto, Ont.—About $600,000 is to be spent by Ontario Government for constructing roads in Rainy River Dist., Kenora Dist., Port Arthur Dist. and in territory west and south of Ft. William.

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Items Arranged Geographically

Port Improvement — Boston, Mass.—Permits and licenses were issued by Directors of the Port of Boston during April, 1915, for various public and private improvements on Boston Harbor, as follows:

Extension of outfall sewer and temporary outfall, Deer Island, by Metropolitan Water & Sewage Bd.

Building seawall and filling, East Boston, by Boston Storage Co.

Building new masonry piers and steel dam over Chelsea Creek, East Boston, by Boston & Albany R.R. Co.

Bulkhead and addition to pier, Neponset, by Geo. Lawley & Sons Cor.

Building temporary pier in tidewater, Quincy, by J. J. Powers.

Building seawall and filling at East Boston, by Metropolitan Coal Co.

Seawall—Bridgeport, Conn.—Bids desired until May 10 by Park Comrs. (B. F. Conney, Clk.), for constructing approximately 450 ft. seawall. A. H. Terry, City Engr.

Piers—Brooklyn, N. Y.—The Bd. of Estimate and Apportionment Apr. 28 appropriated $1,300,000 in corporate stock for the construction of 3 piers on South Brooklyn waterfront. One 1779 ft. long and 150 ft. wide, at foot of 35th St., South Brooklyn; cost $638,000. One at foot of 30th St., 1373 ft. long and 125 ft. wide, cost $400,000, and the other at foot of 29th St., 1215 ft. long 80 ft. wide; cost $222,500.

Dredging and Sea Wall—Ellis Island, N. Y.—Bids desired until May 18 by Hon. Fredk. C. Howe, Comr. of Immigration, Ellis Island, N. Y. H., for furnishing material and dredging; also same time and place for constructing a sea wall at U. S. Immigration Station, Ellis Island; both proposals advertised in Engineering Record.

Dike—New Brunswick, N. J.—Bids desired until May 10 by Thos. J. Headler, Executive Dir. Entomology Bldg., New Brunswick, for building 6000 ft. of dike along western bank of Hackensack River and for building dike facing certain sluice boxes and gates and installation of same along western bank of Hackensack River.

★**Levee Work—Augusta, Ga.**—Contract awarded for constructing an earth levee along Savannah River below Augusta, Sects. 5 and 6, approximately 500,000 cu. yds. in each section, to the Globe Dredging Co., Savannah, and C. E. Glover, of Augusta; total cost $124,000. Nisbet Wingfield, Ch. Engr.

Levee Work—Vicksburg, Miss.—The Mississippi River Comn. (Maj. J. R. Slattery, Engr. in Charge) is reported to have recommended the sum of $1,257,000 for the 3d Dist., the bulk of which, will be expended in revetment extensions. This work is to be done at Bolivar, Ashwood, Neck, Panther, Forest, Greenville, Grand Lake and Fitlers.

Stone for Revetment Work—Vicksburg, Miss.—Bids desired until May 14 by Maj. J. R. Slattery, Corps Engrs., U. S. A., Third Mississippi River Dist., Vicksburg, Miss., for furnishing about 75,000 tons stone for bank revetment work, advertised in Engineering Record.

Mitering Guard Gates—Louisville, Ky.—Bids desired until June 4 by Maj. J. C. Oakes, Corps Engrs., U. S. A., Louisville, Ky., for furnishing and erecting one mitering guard gate of 2 leaves for Lock No. 41, Ohio River, advertised in Engineering Record.

★**Ditch—Bucyrus, O.**—Contract awarded Apr. 29 for constructing Mud Run ditch as follows: Sect. 1, C. B. Weston, Marion, at $5,875; Sect. 2 to J. E. House, Wapakoneta, at $5,359; tile to V. H. McDougal, N. Robinson, at $5,800. L. P. Michaelis, County Surveyor.

Pile Bulkhead Dock—Cleveland, O.—Bids desired May 19 by Co. Comrs. (E. G. Krause, Clk.) for constructing bridge work as per Report No. 3510, the construction of reinforced concrete and steel pile bulkhead dock. W. A. Stinchcomb, Co. Surv.

Dredging, Lorain, O.—C. M. Osborn, City Engr., writes that bids will be received about July 15 for dredging in Ohio River; about 110,000 cu. yds. Silt and clay will be removed.

★**Flood Protection—Indianapolis, Ind.**—Contract awarded Apr. 26 for flood protection along west bank of White River, from Belt R. R. tracks on the south to 14th St., to Cleary White Constr. Co., Chicago, Ill., at $458,065. Work includes 552,000 cu. yds. embankment, 52,000 cu. yds. dry excav., 13,000 cu. yds. wet excav., 96,000 sq. yds. gravel roadway, 4860 sq. yds. brick pavt., 8750 sq. ft. cement walk, 97,000 sq. yds. concrete rip rap, 46,000 cu. yds. concrete, 1:2:5; 7880 sq. yds. wall waterproofing, 61,000 lin. ft. piling, and street drainage system for 4 miles of street on levee. B. J. T. Jeup, City Engr.

Power Plant Excav., etc.—Detroit, Mich.—Bids desired until June 15 by Lieut. Col. Mason M. Patrick, Corps Engrs. U. S. A., Detroit, for excav. of earth and rock, U. S. Power Plant Tail Race, St. Marys River Mich., advertised in Engineering Record.

Breakwater Improvement — Detroit, Mich.—Bids desired by Lieut. Col. M. Patrick, Corps Engrs., U. S. A., Detroit, for breakwater improvement as follows, both proposals advertised in Engineering Record.

Until May 19 (extension of date from May 11) furnishing and placing stone rip rap along lake face of main breakwater, Harbor Beach, Mich.

Until May 20 (extension of date from May 12) constructing and placing 2 timber cribs and replacing with concrete timber superstructure breakwater at Harbor Beach, Mich.

Ditch-Danville, Ill.—Bids reported desired until May 22 by Comrs. Jamesburg Special Drainage Dist., for ditch work requiring 12,285 cu. yds. excav., furnishing and laying 56,650 ft. drain tile. J. F. Fisher, Engr., Garret Bldg., Danville.

Ditch—Roseau, Minn.—It is reported that Engineer H. R. Chapin, estimates cost of constructing ditch No. 21 at about $50,000; work includes 29 miles of main ditch and laterals.

Levee Work—Helena, Ark.—Bids desired May 6, at noon, by N. E. Offenhiser, City Engr., for constructing in Cotton Belt Levee Dist., No. 1, about 1,388,000 cu. yds. of 40-ft. banquette to extend from the south bank of Long Lake Station 15 on Mile 5 to the lower end of Mile 13, and from the upper end of Mile 14 to Station 5 on Mile 25.

Dike, Etc.—Cathlamet, Wash.—It is reported that landowners on Puget Island, on Columbia River, have organized a diking district and will vote on a proposed bond issue latter part of May to build 15 miles of dike around the island. Inside dike, a ditch and two sumps are contemplated. A pumping plant will be installed at each sump, estimated cost $150,000. G. A. Kyle, Engr., Spaulding Bldg., Portland, Ore.

Stone — Seattle, Wash.—Lowest bid opened by Maj. J. B. Cavanaugh, U. S. Engr., Apr. 28, for furnishing 200,000 tons of stone for the Lone Tree Jetty reported submitted by Hercules Sandstone Co., Tenino, $1.55 per ton; total cost $310,000.

Filling, Etc.—Tacoma, Wash.—Commercial Waterway, Dist. No. 1, Hylebos Creek Diking Dist., has submitted a proposition to County Comrs. for filling Lincoln Ave., traversing tideflats, 1½ miles long. Estimated cost $32,000.

Irrigation—Anderson, Cal.—The Anderson-Cottonwood Irrigation Dist., which has been approved by the State Engineer, will be asked to vote $480,000 bonds for construction work. H. H. Henderson, of Anderson, is Ch. Engr. of Dist.

Power Plant—Fresno, Cal.—The San Joaquin Light & Power Co., of Fresno, is reported to be considering construction of a hydro-electric power plant at Merced Falls, to cost about $75,000.

★**Earth Fill—Modesto, Cal.**—Contract reported awarded to Healy-Tibbitts Constr. Co., 3 Main St., San Francisco, for making earth fill for Modesto Irrigation Dist. at $71,065.

Bulkhead Plans—Newport Beach, Cal.—Competitive plans reported desired until May 10 by L. S. Wilkinson, City Clk., for bulkhead for protection of ocean front.

Pier—Redondo Beach, Cal.—Geo. W. Harding, Washington Bldg., Los Angeles, reported to be preparing plans for reinforced concrete pier, to cost $125,000.

Drainage Conduit—Riverside, Cal.—Lowest bid reported submitted by Mlagenovich & Gillespie, 3920 Wisconsin St., Los Angeles, at $23,421 for constructing a concrete drainage conduit in Fairmount Boule. and Market St. and reconstruction of 12th St., concrete drain.

Drainage—Corinne, Utah.—E. W. Dunn, of Brigham, is Secy. of the proposed drainage district, which will cost $100,000 to $125,000. Engineer not yet selected. D. F. Brayton, Attorney, Salt Lake City.

★**Dam—Ogden, Utah.**—Contract reported awarded for constructing the dam of Davis and Weber Counties Canal Co., in East Canyon Creek, to Utah Constr. Co., Ogden; cost about $150,000.

Irrigation—Boise, Idaho.—C. L. Tallmadge, 37 Wall St., New York, writes with regard to contemplated Black Canyon Irrigation Project, that it is located in the southwestern part of Idaho near cities of Boise, Nampa, Caldwell, Payette, Weiser, Emmett and several smaller towns, all embracing a population of about 75,000 people; it is proposed to reclaim about 100,000 acres of land by a pumping system; under the plan the District will own its own hydro-electric plants, pumping stations, rights-of-way, water rights and storage. The contracts to be let will be a tunnel of about a mile in length; one dam about 90 ft. in height; a low storage dam to control Payette Lake which will, perhaps, be 12 ft. high; the hydro-electric plant to generate about 15,000 hp. and necessary pumping installation. Col. John Bogart, 141 Bway., New York, will act as Consulting Engr.

Dams—Calgary, Alta.—The Alberta Hydro-Electric Power Co. will shortly proceed with construction of a series of 6 dams and powerhouses at a cost of $2,000,000. For further information address A. W. Ellson Fawkes, Consulting Engr., P. Burns Bldg., Calgary.

ELECTRIC RAILWAYS.

Items Arranged Geographically

Johnstown, Pa.—Surveys are being made by Johnstown & Somerset St. Ry. Co. for proposed line between Johnstown & Rockwood.

Philadelphia, Pa.—Citizens voted Apr. 29 to authorize a $6,000,000 loan to provide for the beginning of a comprehensive system of rapid transit for city.

Petersburg, Va.—Bids are being received by Petersburg & Appomattox Ry. Co. to construct an electric railway along county roads from Petersburg to City Point, 10 miles. T. M. Wortham, Richmond, Pres.

Richmond, Va.—Richmond & Eastern Ry. Co. chartered to build electric railway from Fulton Brick Works in Richmond to Ft. Lee, distance 5 miles. John C. Robertson, Pres.

Jacksonville, Fla.—Preliminary arrangements are being made by Jacksonville & Florida Ry. Co. for interurban railway to be constructed between Jacksonville and Middleburg. Sayville H. Thorpe, Jacksonville, is interested.

★*Items marked thus give the names of parties awarded contracts.*

Madison, Wis.—The Wisconsin R.R. Comn. authorized Janesville & Madison Traction Co. to issue bonds for constructing line from Madison to Janesville.

Ft. Smith, Ark.—The Ft. Smith Light & Traction Co. voted to spend about $60,000 for rebuilding several of its lines in Ft. Smith.

RAILROADS.

Items Arranged Geographically

Syracuse, N. Y.—The new plans prepared by Henry C. Allen for elimination of grade crossings in this city has been approved by the Grade Crossing Comn., and an effort will be made immediately to enter into a contract with the New York Central Railroad Co. for construction of the new route. The plan provides for the utilization of the Erie Canal bed as far as South State St., for construction of a depressed route from that point under James, Willow and N. Salina Sts., with the site of the new station to be located between Franklin and Plum Sts. The figures presented to the Comn. show that the cost of the new route would be $5,942,825, while the cost of constructing West Shore elevated route would be $7,000,000, and cost of other plan for utilizing canal bed through entire city would be $9,800,000. The new plan would provide for 5 tracks entering the city from the east and 7 tracks leaving the city on the west.

Youngstown, O.—It is reported that a tentative agreement has been reached between financial interests and promoters of the Lake Erie & Youngstown R.R. on the proposed $9,000,000 ore road from Youngstown to Conneaut on Lake Erie, which will probably mean the building of the line in a short time. About $75,000 worth of construction work already has been done.

PUBLIC BUILDINGS AND SCHOOLS.

Items Arranged Geographically

Portland, Me.—Following are four lowest bids opened Apr. 20 by Superv. Archt., Washington, D. C., for erecting the quarantine station at House Island: J. Kresse Co., New York, $53,900; Mahoney Constr. Co., Portland, $68,810; Chas. E. Currier Co., Boston, Mass., $69,000, and F. A. Rumery Co., Portland, $69,216.

★**Brookline, Mass.**—Contract awarded Apr. 22, for erecting a tuberculosis hospital to Marr Bros. & Stewart Co., Boston, at $21,636. Harold F. Kellog, Archt. 141 Milk St.

Amsterdam, N. Y.—City contemplates erecting a city hall. W. A. Kline, Mayor.

Alden, N. Y.—Plans have been prepared by W. S. Brickell-Swain Co., of Buffalo, for the 3-story semi-fireproof brick and stone high school; cost $25,000.

Cohoes, N. Y.—Bd. Educ. contemplates erecting a high school.

New Rochelle, N. Y.—Bd. Educ. contemplates erecting a 2-story brick addition to the $175,000 North Ave. high school.

New York, N. Y.—Bids desired until May 13 by Park Commissioners New York (Cabot Ward, Pres.) for erecting an animal hospital in the Zoological Park, Boro. Bronx, also same time and place separate bids for plumbing and heating in same.

New York, N. Y.—Bd. Trus. of Barnard College intends erecting a students' building at Bway and 119th St., to cost $522,000.

Orchard Park, N. Y.—Citizens voted $50,000 bonds to erect the high school. Robt. North, of Buffalo, Archt.

South Dayton, N. Y.—State Dept. of Educ., Albany, has approved plans for the $25,000 high school. H. P. Beebe, of Fredonia, Archt.

Englewood, N. J.—Bd. Educ. contemplates erecting a $150,000 school on Engle St.

Jersey City, N. J.—John Rowland, Jr., of Jersey City, is reported to be the architect for the addition which it is proposed erecting to the City Hospital, at a cost of $200,000.

Preliminary plans being prepared by John T. Rowland, Jr., 98 Sip Ave., for the county jail, to be erected on Willow St. and Newark Ave., at a cost of $1,000,000.

Reported City Comrs. will soon ask bids for erecting a concrete hose house costing $50,000.

Plans prepared by John T. Rowland, Jr., 98 Sip Ave., for an addition to the St. Ann's Home on Old Bergen Road.

Newark, N. J.—Essex County Park Comn. has approved plans of H. Van Buren Magonigle, of New York, N. Y., for the administration building, 2 and 3 stories, brick, reinforced concrete and steel, to be erected in Branch Brook Park and cost about $75,000.

★Contract was awarded Apr. 27 by Bd. of Educ., for erecting addition to Oliver St. school, as follows: Fred. Fatzler Co., Inc., Newark, masonry, $63,-341; Bear Eng. Co., Philadelphia, steel, $13,167; Jacob Steinberg, Newark, roofing, $1,725; Schaedel Bros., Newark, carpentry, $16,928; Kuscher & Popp, Newark, painting, $2,138.

Paterson, N. J.—Bids desired until May 24 by Bd. Educ. (Jas. F. Dunphey, Secy.) for erecting an addition to School No. 21, including mason work, carpentry, heating, plumbing etc. Wm. T. Fanning, Colt Bldg., Archt.

Plainfield, N. J.—Bd. Educ. contemplates erecting a school in the Netherwood Section.

Pleasantville, N. J.—Ordinance has passed Council on first and second reading authorizing issue of $48,000 bonds for erecting school and purchase of property for same.

★**Canton, Pa.**—Contract for erecting high school awarded to Crandall Bros., of Williamsport.

Harrisburg, Pa.—Plans prepared by Carl Zantzinger, of Philadelphia, for a 2½-story brick dormitory to be erected at the Harrisburg Academy.

Hudson, Pa.—Bids desired until May 13 by Bd. Dirs., School Dist. of Plains Township, (Richd. G. Ayers, Secy., 38 Cotton Ave, Hudson,) to furnish material and erect a brick school. Separate bids desired for heating, plumbing and electrical work. Austin L. Reilly, Archt. Bennett Bldg., Wilkesbarre.

Irwin, Pa.—Bids desired until May 25 by Bd. School Directors of Districts of Irwin Borough and North Huntington Township (C. L. Herbster, Secy.) for erecting a school, including heating, plumbing, etc. W. G. Eckles, Archt., New Castle.

Lebanon, Pa.—Bids desired May 11 by Adjutant General, Harrisburg, for erecting the armory here to cost $30,000. McCormick & French, Archts., Wilkesbarre.

South Bethlehem, Pa.—Bids desired until May 27 by Dr. Robt. Yost, Secy. School Dist. in High School, Vine St., South Bethlehem, for erecting a 3-story and basement and sub-basement high school on Packer Ave. A. W. Leh, Archt., South Bethlehem.

Oil City, Pa.—E. E. Joralemon, of Buffalo, N. Y., engaged to prepare plans for the 2-story school to be erected on State and 2d Sts., to be fireproof, contain 16 class rooms, auditorium and gymnasium.

★**Pittsburgh, Pa.**—Following are five bids opened Apr. 27 for completing the Schenley High School: Thompson Starrett Co., 2d Natl. Bank Bldg., $623,000 (awarded contract); Thos. Reilly Co., $628,117; Jas. L. Stuart, $640,000; Geo. A. Fuller Co., $643,000; Geo. Hogg Co., $647,287.

Bids desired until May 11 by City Comptroller, for erecting a farmers' market on Monogahela Wharf at Ferry St. Robt. Swan, Dir. Dept. Pub. Wks.

★Contract awarded to Henry Shenk Co., of Pittsburgh, for erecting a 4-story brick and stone fireproof building at Sandusky St. and Park Way for the Trus. of the Allegheny General Hospital, to be known as the W. H. Singer Memorial Laboratory and to cost $90,000. Janssen & Abbott, of Pittsburgh, Archts.

Reading, Pa.—Bids desired until June 8 by Jas. Wetmore, acting Superv. Archt., Washington, D. C., for extension, remodeling, etc. of U. S. Post Office at Reading, and for clearing a portion of the Post Office site.

Swarthmore, Pa.—Bids reported desired May 14 by Trus. Swarthmore College, Swarthmore, for erecting a 4-story stone and reinforced concrete building. Bunting & Shrigley, Archts., 603 Chestnut St., Philadelphia.

Swissvale, Pa.—School bonds amounting to $50,000 have been sold.

Westmoreland, Pa.—Sisters of Charity propose erecting a hospital on Seton Hill which will cost $250,000.

Wilmington, Del.—Wallace E. Hance, of Wilmington, engaged to prepare plans for the $150,000 high school.

Alexandria, Va.—Plans for the Alexandria Hospital are to be prepared by Waddy B. Wood, of Washington, D. C.

Fairmont, W. Va.—Lowest bids opened by State Bd. Control at Charleston for erecting the Normal School here was submitted by J. L. Crouse, of Greenswood, N. C. Building is to be 85 x 250 ft., fireproof construction, and cost about $110,-000. Paul A. Davis, 3d, of Philadelphia, Pa., Archt.

★**Elizabeth City, N. C.**—Contract for erecting the city market awarded to J. W. Martin, of Elizabeth City, at $21,919.

Atlanta, Ga.—Bids desired until May 24 by Dept. of Justice, office of F. H. Duehay, Supt. of Prisons, Washington, D. C., for furnishing and delivering at U. S. Penitentiary, Atlanta, for furnishing structural steel and iron above first floor framing for bath, laundry and tailor shop building.

★**Conyers, Ga.**—Contract for erecting the school awarded to Little & Phillips, of Cordele, at $28,477.

Arcadia, Fla.—Bids reported desired until May 25 by County Bd. Public Instruction, Arcadia, for erecting a brick school at Sebring, and also one at Nocatee; bids on concrete will also be considered. Chas. P. Niederhauser and Wm. L. Redditt, Arcadia, Archts.

Jacksonville, Fla.—Bids desired until May 17 by the Port Comrs. (F. W. Bruce, Ch. Engr.) to furnish material and erect an office and administration building on Talleyrand Ave.

St. Petersburg, Fla.—Competitive bids desired for a $150,000 public auditorium. Address Bd. of Trade.

Tampa, Fla.—Bids desired June 14 by Jas. A. Wetmore, Acting Superv. Archt., Washington, D. C., for construction complete (including mechanical equipment) of the attendants' quarters, disinfecting shed, oil house, wharf, etc., for the quarantine station at Tampa Bay, Fla., advertised in Engineering Record.

New Orleans, La.—The Sewer and Water Board (Geo. C. Earl, Gen. Supt.) Room 502 City Hall Annex, has purchased a site at Carondelet and Lafayette Sts. but no plans yet prepared and not yet decided when building will be constructed.

Memphis, Tenn.—Bids reported desired until May 15 by Bd. Educ., to erect a 2-story school. Probable cost, $25,000. Mahan & Brodwell, Archts., Germania Bank Bldg.

Highland Park, Ky.—Bids desired until May 11 by Bd. Trus. Highland Park Graded School Dist No. 46 for erecting a school in East Highland Park; also improvements to the Oakdale School. H. F. Hawes, Archt., Urban Bldg., Louisville.

★**Akron, O.**—Contract awarded to Indiana Eng. & Constr. Co., of Ft. Wayne, Ind., for erecting the central fire station, which is to cost about $50,000.

Ashville, O.—Bids desired until May 27 by Bd. Educ. Harrison Township (Herman Reid, Clk., Ashville) for erecting a brick school. E. H. Rickett, Archt., Columbus.

Ashtabula, O.—Bids desired until May 12 at office of Lighthouse Inspector, Buffalo, N. Y. for furnishing metal work for superstructure of Ashtabula west breakwater light station, Ashtabula Harbor, O.

Cleveland, O.—Bids desired until June 1 by Clerk Bd. Educ. for erecting an annex to the Central School, Central Ave. and E. 65th St., including masonry, carpentry, heating, plumbing, etc. Frank G. Hogen, Dir. Schools.

Columbiana, O.—Bids desired until May 15 by Vincent C. Basinger, Clk. Bd. Educ., to furnish material and erect an 8-room centralized school with auditorium and gymnasium of fireproof construction. E. Rufus Thompson, Archt., 524 Belmont Ave., Youngstown.

Columbus, O.—Plans being prepared by Riebel & Sons, Columbus, for 2 high schools, one in the north and one in the east side of the city; cost to be about $500,000 each.

Corning, O.—Bids desired until June 3 (readvertisement) by Bd. Educ. (Geo. C. Allen, Clk) for erecting a school. Marriott, Allen & Hall, Archts., Columbus.

Fremont, O.—Bd. Educ. taking steps to let contract for erecting addition to Hayes Ave. School.

Oxford, O.—Plans being prepared by Louis G. Dittoe, Provident Bank, Cincinnati, for the proposed dormitory for Miami University.

Ripley, O.—Bids reported desired until May 27 by E. R. Young, Clk., Union Township, Citizens' Natl. Bank Bldk., to erect a library. Weber, Werner & Adkins, Archts., Mercantile Library Bldg., Cincinnati.

Springfield, O.—Reported lowest bid for erecting the centralized school in Elizabeth Township was submitted by A. M. Fry, of Piqua, at $31,745.

★**Warren, O.**—Contract awarded Apr. 28 for erecting addition to Warren General Hospital to Warren General Constr. Co., at $35,500. C. C. C. and A. L. Thayer, Archts., New Castle, Pa.

Ellettsville, Ind.—Bids reported desired until May 17 by D. F. Burk, School Trus., Richland Township, to furnish material and erect a 2-story grade and high school, including heating system. Johnson & Miller, Archts., 21 N. Walnut St., Brazil.

Seymour, Ind.—Bids reported desired until May 11 by Albert Johnson, City Clk., to erect a storage building and warehouse.

Detroit, Mich.—Bids desired until May 13 by the Library Comn. (D. B. Duffield, Pres.) for structural steel work for superstructure of new main library building. Cass Gilbert, Archt., 11 E. 24th St., New York City.

Chicago, Ill.—The citizens of Cook County will vote in June on issuing $3,600,000 bonds—$2,500,000 of which will be used for a new jail and criminal court building, $1,000,000 for county hospital and $100,000 for completion of the county building.

Pekin, Ill.—Bids reported desired until May 10 by Hewitt & Emerson, Archts., 321 W. Main St., Peoria, to erect a 2-story and basement high school. Probable cost $90,000.

Peoria, Ill.—Bids desired until May 12 by Bd. School Inspectors, (Anna Rynearson, Secy.,) to furnish material and erect an addition to Irving School, Glendale Ave. and Hancock St. John F. King, Archt., Central Natl. Bank Bldg.

Rock Island, Ill.—Bd. Superv. has adopted the plans of C. D. McLane for the new jail; probable cost $75,000.

Savanna, Ill.—Bids desired until May 17 by Bd. Educ. Savanna, School Dist. No. 71 (Dr. J. B. Schrerter, Secy.), to erect a 2-story and basement school. Ashby & Schulze, Archts., 178 W. Jackson Boule., Chicago.

Urbana, Wis.—Bids reported desired until June 1 at office of Jas. B. Dibelka, State Archt., 130 N. 5th Ave., Chicago, for the general, electrical, ventilating and heating and plumbing contracts for School of Education Ceramics and Vivarium buildings, Urbana.

Otjen, Wis.—Bids desired until May 14 by M. J. Hughes, Clk. School Bd., Dist. No. 7, Town of Oak Creek, Otjen, to erect a grade school. Chandler & Park, Archts., Racine.

Milwaukee, Wis.—Bids desired until May 27 by Capt. E. P. Bertholf, Comdt. U. S. Coast Guard, Washington, D. C. for constructing a coast guard station, launchway, and accessories at Milwaukee, advertised in Engineering Record.

Bonaparte, Ia.—Bids reported desired until May 14 (extension of date from May 6) by Independent School Dist. of Bonaparte for furnishing material, erecting and equipping a high and grade school. Underhill & Dean, Archts., Bryant Bldg., Kansas City, Mo.

Linn Grove, Ia.—Bids desired by H. L. Pierce, Secy., May 20 for $48,000 school bonds.

Magnolia, Ia.—Bids reported desired until May 17 by Bd. Educ., and H. H. Craddock, Archt., Continental Bldg., Omaha, Neb., to erect a 2-story and basement, 61 x 82-ft. school. Probable cost, $27,000.

Missouri Valley, Ia.—A $25,000 school is to be erected for the Roman Catholic Church.

Muscatine, Ia.—School Bd. has engaged H. W. Zeidler, of Muscatine, to prepare plans for the school to be erected on the north side.

Roland, Ia.—Citizens voted recently $50,000 bonds for erecting and equipping a new school.

★**Wilton Junction, Ia.**—Contract awarded Apr. 22 for erecting school to J. Soller & Son, Davenport, at $21,479. Reimer & Herlin, Archts., First Natl. Bank Bldg., Manhattan.

Independence, Kan.—Bids desired until May 12 by Bd. City Comrs., to erect a City Hall. G. H. Krienhagen, City Clk.

Lincoln, Neb.—Revised plans have been completed for the Bessey Biological Laboratories to be erected at the Univ.

Madison, S. D.—Bids desired until May 28 by Bd. Educ. (H. H. Holdridge, Clk.) for erecting a high school.

Havre, Mont.—John H. Devine, County Clk. and Recorder, writes that the proposed court house and jail bids to be opened May 24 will be 2 stories of burned brick, and cost $125,000. Architect, F. F. Bossnot, of Havre.

Miles City, Mont.—Citizens voted $60,000 bonds to erect the high school.

New Madrid, Mo.—Contractors wanted to submit estimates for erection of County courthouse and jail by Architects Clymer & Drischler, Wainwright Bldg., St. Louis, before May 22.

Little Rock, Ark.—School Bd. has authorized bond issue of $80,000 for school improvements which will include the building of the U. M. Rose School.

Gainesville, Tex.—The Bd. of Control of the Girls' State Training School to be built at Gainesville has adopted the cottage plan to be of concrete construction and cost $50,000.

Marlin, Tex.—Bids desired until June 14 by Jas. A. Wetmore, Acting Superv. Archt., Washington, D. C., for construction, complete (including mechanical equipment, lighting fixtures, etc.), of U. S. Post Office at Marlin.

Lawton, Okla.—Bids desired until May 15 by Katherine Cornish, Secy. Antwerp Township School Dist. No. 8, to erect a school.

Oklahoma City, Okla.—Bids desired June 7 by State Capitol Comn. (Ira Mitchell, Secy.) for constructing the capitol proper and for mechanical equipment. Layton & Smith, Archts., 701 Majestic Bldg.

Sapulpa, Okla.—John W. Young, Secy. Bd. Educ., writes citizens will soon vote on issuing $150,000 bonds for erection of high school.

Bremerton, Wash.—Bids desired until May 29 by H. R. Stanford, Ch. Bureau Yards & Docks, Navy Dept., Washington, D. C., for erecting a fireproof torpedo storehouse at Keyport, Puget Sound, Wash.

Chico, Cal.—Bids reported desired until May 18 by W. F. McClure, State Engr., Forum Bldg., Sacramento, to erect Model Rural School, State Normal School, Chico.

Los Angeles, Cal.—Bids desired May 13 by Wm. A. Sheldon, Secy. Bd. Educ., for erecting an addition to Western Ave. School, a school on 20th St.; a school on Echo Park Ave. and Baxter St. (brick and concrete construction); school on Santa

★*Items marked thus give the names of parties awarded contracts.*

Monica Boule.; also until May 12, same place, separate bids for high school on Avenue 54 and Irvington Pl., brick, concrete and plaster construction.

Plans will be received until May 13, same place as above for an 8 room school and auditorium on Rowan Ave. and a 7-room school on Santa Monica Boule.

Huntington Beach, Cal.—Bids desired until May 15 by C. E. Lavering, Clk. School Dist., for erecting a grammar school, including heating, plumbing, etc. John C. Smith, Archt., Herman W. Hellman Bldg., Los Angeles.

Redondo Beach, Cal.—Bids desired until May 18 by Bd. Trus. Redondo Union High School Dist., for erecting a high school on Diamond St. and Elena Ave. Allison & Allison, Archts., Los Angeles.

Rivera, Cal.—Bids desired May 17 by Bd. Trus. Gallatin School Dist. (Mrs. L. S. Williams, Clk., Box 116, R. F. D. Rivera) for erecting a school on Downey Road about 1½ miles north of Downey. Allison & Allison, Archts., Hibernian Bldg., Los Angeles.

Phoenix, Ariz.—City Comrs. considering erecting a new city hall; cost $500,000.

Salt Lake City, Utah.—Jas. Paxton, Clk. Bd. of Educ., Granite School Dist., 3630 State St., writes Cannon & Fetzer, Templeton Bldg., are preparing plans for erecting school for which citizens recently voted $100,000 bonds.

Blackfoot, Idaho.—Bids reported desired until May 17 by G. H. Holbrook, Clk. Bd. Co. Comrs., for erecting an additional 2 stories to the County Courthouse. Probable cost $50,000.

Grand Mere, Que.—Bids desired until May 19 by R. C. Desrochers, Secy. Dept. Pub. Wks., Ottawa, Ont., for erecting a public building here.

Sault Ste. Marie, Ont.—Bids desired until May 13 by H. F. McNaughten, Secy. Pub. Wks. Dept., for erecting a jail (excepting heating, plumbing and lighting).

Toronto, Ont.—Bids desired until May 13 by Chairman Toronto Electric Comrs. for erecting a substation at Carlaw Ave. and Gerrard St.

PRIVATE BUILDINGS.

Items Arranged Geographically

Worcester, Mass.—Central Realty Co. is having plans prepared by Dykeman & Murray, Boston, for a 6-story apartment house, 100 x 100 ft., to be erected on Elm St. at a cost of $275,000.

A. J. Booth intends erecting on Richmond St. a 1-story concrete garage, 50 x 105 ft.

Batavia, N. Y.—Plans being prepared by Neal M. Dunning, Builders' Exchange, Buffalo, for 2 residences with garages and 9 farm buildings of tile and stucco to be erected near Batavia for R. E. Chapman of the R. E. Chapman Mfg. Co., Batavia. Cost $80,000.

★**Buffalo, N. Y.**—Reported contract for first unit of the freight and passenger stations to be erected by the Lehigh Valley R.R. here has been awarded to Henry Miller, Inc., of Baltimore, Md.

A 3-story tile and stucco dwelling with garage is to be erected on Rumsey Road and Windsor Ave. for Mrs. O. P. Letchworth, 605 Niagara St., at a cost of $30,000.

Plans being prepared for a 100 x 60 ft. concrete and terra cotta business building to be erected by Ernest C. Colter, 444 Mutual Life Bldg., at Elmwood and Hodge Aves.

New York, N. Y.—Plans for 12-story brick, limestone, terra cotta and reinforced concrete loft building to be erected at Madison Ave. and 29th St. are to be prepared by Sommerfeld & Steckler, 31 Union Sq. Geo. Backer, Constr. Co. and Arnstein & Levy, owners.

Fogliasso Clement Bldg. Co., 197 Bleecker St., contemplates erecting a 7-story apartment house at 79 Washington Pl.

Plans being prepared for the following: By Neville & Bagge, 105 W. 40th St., for a 5-story apartment house at Plimpton Ave. and 170th St. for R. A. Winter & Son, cost $50,000; by C. B. Myers, 1 Union Sq., for a 5-story apartment house to be erected at E. 182d St. and Prospect Ave. for Nivard Realty Co.; cost $50,000.

Plans filed for the following buildings: Two 5-story brick tenements at 189th St. and St. Nicholas Ave. for S. B. Bldg. Corp., cost $90,000, Jacob M. Felson, Archt., 1133 Bway.; 5-story brick tenement at 211th St. and Vermilyea Ave. for Lorris Solomon, cost $50,000, Gronenberg & Leuchtag, Archts., 303 5th Ave.; 6-story brick apartment house at Ft. Washington Ave. and 169th St. for County Eng. Co., cost $70,000, C. Steinmetz, Archt., 2333 Loring Pl.; three 5-story brick apartment houses at Haven Ave. and 178th St. for Nevah Constr. Co., cost $195,000, Goldner & Goldberg, Archts., 391 E. 149th St.; 12-story fireproof club house at 132 E. 45th St. for Y. W. C. A. of New York, 600 Lexington Ave., cost $240,000, Parish & Schroeder, Archts., 12 W. 31st St.; 10-story fireproof Y. W. C. A. building at Lexington Ave. and 53d St., cost $340,000, Donn Barber, Archt., 101 Park Ave.; 5-story fireproof Home for Aged Folks at 230 E. 10th St. for Home of the Sons and Daughters of Israel, cost $40,000, Louis A. Sheinart, Archt., 194 Bowery; 12-story fireproof store and factory at 29 W. 39th St. for Wallack Constr. Co., cost $300,000, Schwartz & Gross and B. N. Marcus, Archts., 347 5th Ave.; 12-story fireproof store, storage and loft building at 229 W. 28th St. for John J. Radley, cost $300,000, Wm. M. Farrar, Archt., 1269 Bway.; 12-story brick store and loft building at 38 E. 30th St. for 40 East 30th St. Co., cost $275,000, Randolph H. Almiroty, Archt., 220 5th Ave.; 8-story fireproof store and loft building at 264 W. 19th St. for Rehcansie Realty Co., cost $100,000, H. Hasbrouck, Archt., 245 W. 18th St.; 12-story fireproof loft building at 31st St. and 5th Ave. for Strathcona Constr. Co., cost $350,000, G. & E. Blum, Archts., 505 5th Ave.; 6-story brick garage and warehouse at Kingsbridge Ave. and 236th St. for Ames Transfer Co., cost $75,000, John G. Kleinheus, Archt., 1839 E. 12th St., Brooklyn; 5-story brick tenements at Ryer Ave. and Field Pl. for 173d St. Improv. Co., cost $75,000, Kreymborg Architectural Co., Archts., 1029 E. 163d St.; 5-story brick tenement at Bway. and 236th St. for Augustus Van Cortlandt, cost $60,000, Cross & Cross, Archts., 100 E. 47th St.; two 5-story brick tenements at Concourse and 183d St., also three 5-story brick tenements at Ryer Ave. and 183d St., for County Estates, Inc., total cost $250,000, Moore & Landsiedel, Archts., 3d Ave. and 148th St.; three 5-story brick tenements at Arthur Ave and 180th St. for J. W. R. Realty Co., cost $150,000, Tremont Architectural Co., Archts., 401 Tremont Ave.; two 5-story brick tenements at 163d St. and Prospect Ave. for Williams Bldg. Corp., cost $115,000, Gronenberg & Leuchtag, Archts., 303 5th Ave.; 5-story brick tenement at Mt. Hope Pl. and 176th St. for K. & R. Constr. Co., cost $140,000, Gronenberg & Leuchtag, Archts., 303 5th Ave.

Rochester, N. Y.—Plans being prepared by Hutchinson & Cutler, Cutler Bldg., for a 7-story and basement 35x75 ft. steel brick and terra cotta studio building to be erected at Elm and Chestnut Sts., by F. L. Greeno, 112 Cutler Bldg. Cost $60,000.

★Contract awarded to E. R. Fenno, Syracuse, for erecting a 5-story and basement warehouse on Canal St. for Brewster Gordon & Co., 47 North Water St.; cost $130,000. Foster & Gade, of Rochester, Archts.

Utica, N. Y.—Bids reported desired until May 15 by T. P. Barnett Co., Archts., Central Natl. Bank Bldg., St. Louis, Mo., for erecting a 4-story, 127 x 192 ft. addition to the Martin Hotel, Utica. Probable cost $200,000.

Dickson City, Pa.—Ballinger & Perrot, Philadelphia, selected by St. Thomas Apostle R. C. Church to prepare plans for the $25,000 church.

Duquesne, Pa.—Plans for brick First English Evangelical Lutheran Church, to be erected at 4th St. and Kennedy Ave., are to be prepared by O. M. Topp, Pittsburgh; cost $25,000.

★**Elizabethtown, Pa.**—Contract for erecting the Berks County Memorial Building at the Masonic Home here awarded to Adam B. Spatz, of Wernersville; cost $25,000.

★**Freeport, Pa.**—Contract for erecting 3-story building for Odd Fellows Home awarded to John Meyers, of Freeport.

★**Lewisburg, Pa.**—Contract awarded to H. J. Stannert and Albert Boyer, of Northumberland for erecting the United Evangelical Church and Parsonage at an approximate cost of $30,000.

Pittsburgh, Pa.—Plans prepared by Rutan & Russell, Magee Bldg., for the Diamond Country Market Co. for a 3-story building to have cold storage facilities on 3d floor, and to be erected at 4th Ave. and Wood St.

Plans have been completed by Janssen & Abbott, Century Bldg., for a stone and brick residence to be erected on Woodland Road and Wilkins Ave., Squirrel Hill, for Edw. Pitcairn, at a cost of about $40,000.

Tacony (P. O. Philadelphia), Pa.—Plans being prepared by Heacock & Hokanson, Bailey Bldg., Philadelphia, for a sunday school building for the Tacony Methodist Church, Hegerman and Longshore Sts.; cost $25,000.

★**Baltimore, Md.**—Contract for erecting theater on North Ave. and Charles St. for Northern Amusement Co. awarded to J. Henry Miller, Inc., of Baltimore; cost about $120,000. Oliver B. Wight, Archt., Munsey Bldg.

Plans reported prepared by Otto G. Simonson, Baltimore, for a $1,000,000 hotel which Southern Hotel Co. contemplates erecting an Light and German Sts.

Delmar, Del.—Methodists said to be planning erecting a church costing $27,000.

★**Savannah, Ga.**—Contract for erecting the 5-story bank building for American Bank & Trust Co. at Bay and Drayton Sts. awarded to E. W. Minter & Co., of New York. Archts., E. W. Young, of Savannah, and Alfred C. Cossom, of New York.

★**Memphis, Tenn.**—Contract awarded to Kauchery, Hodges & Co., Memphis, for erecting a 3-story, fireproof, reinforced concrete building on Madison Ave. and Southern Ry. for N. O. Nelson Co. G. M. Shaw & Co., Archts., Tennessee Trust Bldg.

Cincinnati, O.—Walnut Hills Lodge, F. & A. M., said to be contemplating erecting a lodge building costing $40,000.

Cleveland, O.—Plans being prepared by F. W. Walsh, Lennox Bldg., for a 2-story stone parochial school to be erected at Superior Ave. and E. 43d St. for the Church of the Immaculate Conception; cost $50,000. Rev. Geo. G. Murphy, Pastor.

Plans being prepared by Theo. Conner, Park Bldg., for a 3-story commercial building to be erected for the Clifton Furniture Co., 9802 Madison Ave., at 76th St. and Lake Road; cost $50,000.

★Contract awarded by W. S. Ferguson Co., 1900 Euclid Bldg., Consulting Engrs., to Walther Eng. & Constr. Co. for excavating and. concrete work on the Ohio Buick Bldg., 1903 E. 19th St.; cost $110,000.

Wooster, O.—Bids reported desired until May 13 by Henry & Murphy Archts., Doyle Bldg., Akron, and F. & A. M. (W. D. Foss, Chmn. Bldg. Com., 356 N. Market St., Wooster), to erect a 2-story and basement, 60 x 80 ft. Masonic Temple. Probable cost $30,000.

Chicago, Ill.—The Methodist Book Concern at a meeting in San Francisco, Cal., voted to erect a 6-story building in Chicago; cost not to exceed $275,000.

Chicago Athletic Assoc. (Francis S. Peabody, Pres.) reported to have had plans prepared by Marshall & Fox, of Chicago, for an 18-story club house which the association proposes erecting on the site of present club house on Michigan Ave., taking in the corner at Madison St.

★R. Trimble, of Pittsburgh, Pa., Ch. Engr. Maintenance of Way. of Pennsylvania Lines, West of Pittsburgh, North West System, writes, with regard to new freight house to be built at Chicago. that contract for foundations of this building was let May 3 to Blome-Sinek Co., City Hall Square Bldg., Chicago. He further states that bids will be called for shortly from the Pittsburgh office for erecting superstructure of the building.

Lincoln, Ill.—The Odd Fellows are considering erecting a $40,000 temple.

Stanley, Wis.—Bids desired until May 15 by Citizens State Bank for erecting a 2-story bank building. F. H. Ellerbe, Archt., 692 Endicott Bldg., St. Paul, Minn.

Viola, Wis.—Bids reported desired until May 25 by State Bank of Viola, to erect a 2-story brick and stone office building. Parkinson & Dockendorf, Archts., La Crosse, Wis.

★**Vinton, Ia.**—Contract for erecting the Methodist Church awarded to Theo. Stark & Co., Cedar Rapids, at $45,800.

Duluth, Minn.—Bids reported desired until May 15 by F. G. German, Archt., to erect a 4-story, 160x240 ft. warehouse for the Terminal Realty Co. Probable cost $250,000.

Elgin, Minn.—Bids desired until May 17 by Hoffman & Mosse, Archts., Rochester, Minn., for erecting a bank building for Farmers & Merchants State Bank.

Plainview, Minn.—Bids desired until May 17 by Geo. H. Dickman, Secy. Bldg. Com., for erecting a brick and stone church for Evangelical German Lutheran Church. Hoffman & Mosse, Archts., Rochester, Minn.

Renville, Minn.—Bids desired May 14 by C. L. Grover, Archt., Zumbrota, Minn., for erecting a 2-story commercial club building, brick, 40 x 90 ft.

St. Paul, Minn.—Plans filed for a 5-story addition to the Emporium Bldg. at Roberts and 7th Sts., to cost $150,000.

Site at Cedar St. and Central Ave. has been decided upon for the Minnesota State Historical Society building which is to cost $500,000.

Manhattan, Kan.—Bids reported desired until May 10 by H. B. Winter, Archt., Manhattan, to erect an edifice, 82 x 100 ft. for the Presbyterian Church (E. H. Davis, Chmn.).

Livingston, Mont.—The Elks are considering the erection of a 3-story $60,000 lodge building on 2d and Lewis Sts.

Missoula, Mont.—Bids reported desired until May 10 by Ole Bakke Archt., Missoula and Presbyterian Church, to erect an edifice, 2-story, 60 x 105 ft. Probable cost $40,000.

Hot Springs, Ark.—Plans being prepared by Mann & Stern, of Little Rock, for a 10-story annex, which it is proposed erecting to the Arlington Hotel; cost about $200,000.

★**Little Rock, Ark.**—Contract awarded to Wm. Peterson for erecting the 2-story building on 4th and Louisiana Sts. for the Mutual Real Estate Co. at a cost of $60,000. Mann & Stern, Archts., Little Rock.

Galveston, Tex.—Knights of Pythias propose erecting a 3-story lodge building on Winnie St.

Plainview, Colo.—Reported national Order of Cowboy Rangers has been incorporated and will erect a club house here costing about $50,000.

Seattle, Wash.—Reported Metropolitan Bldg. Co., White Bldg., contemplates erecting an office building costing $200,000.

Spokane, Wash.—Plans completed by W. P. Fuller & Co. for their proposed 4-story reinforced concrete warehouse, to cost $100,000.

Portland, Ore.—Plans being prepared by Root & Kerr, of Portland, for a 3-story, 100 x 100 ft., brick and heavy mill constructed building to be erected at Irving and 15th Sts., to cost $30,000.

★Plans filed for a 6-story reinforced concrete warehouse to be erected at E. 28th and Multnomah Sts. for the Doernbecher Mfg. Co. at a cost of $50,000. Jacobberger & Smith, Contractors.

★**Fresno, Cal.**—Contract for erecting the reinforced concrete fireproof garage for the J. C. Phelan Garage awarded to Trewhitt & Shields, at $41,000.

Belleville, Ont.—Bids reported desired until May 20 by Dept. Pub. Wks., Ottawa, to construct a freight shed, baggage and waiting rooms here.

NEW INDUSTRIAL PLANTS.

See also "Private Buildings."
Items Arranged Geographically

Worcester, Mass.—Stafford Iron Wks. Co. intends erecting a foundry on Stafford St.

Hartford, Conn.—A 5-story factory costing $75,000, also an office building are to be erected by the Hartford Screw Machine Co.

Buffalo, N. Y.—Permits issued to Eastern Grain Mill & Elevator Corp. to erect a reinforced concrete and steel grain elevator and mill on Buffalo River and Lake Shore R.R. and Buffalo Creek Terminal R.R., to cost $226,700.

Cutler Desk Co. will erect a 1-story steel and brick 50 x 110 ft. addition to their factory on Churchill St. and New York Central R.R.

Plans completed by C. J. Handel, 314 Seneca St., for a 2-story addition, 50 x 78 ft., to the carriage and wagon works at Myrtle and Chicago Sts.

Rochester, N. Y.—Reported a fireproof factory to be occupied by the Brownyard Fireproof Door & Window Co., 367 Mill St., is to be erected in the 21st Ward on N. Y. Central R.R., near Winton Road.

Camden, N. J.—The Taubel Co., of Riverside, N. J., and Frankford, Pa., reported to have secured a site at 8th and Spruce Sts. on which it is proposed erecting a hosiery mill.

★**Newark, N. J.**—Contract for erecting blacksmith and machine shop at Meadow Shops, near Newark, for Pennsylvania R.R. awarded to Chas. Gilpin, Philadelphia. Building to be of steel and wood, 150 x 250 ft.

Norristown, Pa.—Ballard Knitting Co. (H. T. Ballard, Mgr. and Pres.) reported to have had plans prepared for a plant which it is proposed erecting at Noble and Washington Sts. to consist of a 5-story, 125 x 60 ft. building and a 2-story, 50 x 100 ft. building adjoining. Additional machinery will be purchased.

Philadelphia, Pa.—Plans being prepared by M. H. Dickinson, Weightman Bldg., for a 4-story reinforced concrete factory to be erected at 25th and Locust Sts. for A. H. and F. H. Lippincott, Inc., to be 110 x 140 ft., and cost about $100,000.

Hagerstown, Md.—Plans being prepared by Peuckert & Wunder, 310 Chestnut St., Philadelphia, Pa., for a 1 and 2 story brick, steel and concrete factory to be erected for the Pangborn Corporation to contain a 10-ton crane, and have modern equipment. Estimated cost $50,000.

Huntington, W. Va.—Paul Hardy, R. P. Aleshire and others, of Huntington, reported to have formed the Huntington Alloy Co. for the purpose of erecting a plant for the manufacture of alloys of different metals, reducing ores, manufacture of refractory material and construction of furnaces.

Birmingham, Ala.—Reported Armour & Co., of Chicago, Ill., propose erecting a packing plant in North Birmingham costing about $500,000.

Decatur, Ala.—Reported the Lynnville Mill & Elevator Co. recently destroyed by fire is to be rebuilt; probable cost $75,000.

Columbia, Tenn.—W. J. & J. Frank Rushton, of Birmingham, reported interested in the company which intends erecting a 30-ton duplicate ice plant here. Cost about $50,000.

Cleveland, O.—Reported Van Dorn Iron Wks. Co. intends erecting a shop on E. 79th St. and Nickel Plate R.R. to be 100 x 200 ft.

★**Yorkville, O.**—Contract for erecting an addition to the plant of the Wheeling Steel & Iron Co., costing $25,000, awarded to Ft. Pitt Bridge Co., Pittsburgh.

Milwaukee, Wis.—Reported Ford Automobile Co., of Detroit Mich., intends erecting a plant here to be 7 stories and cost $500,000.

Battendorf, Ia.—Zimmerman Steel Co., of Lone Tree, Ia., has had plans prepared for a $225,000 plant to be erected here.

Davenport, Ia.—Crescent Macaroni & Cracker Co. intends erecting a $300,000 plant here. Claussen & Krause, Archts., Central Office Bldg.

★*Items marked thus give the names of parties awarded contracts.*

Muscatine, Ia.—Merchants Elevator Co., 109 Chamber of Commerce, Minneapolis, Minn., it is reported is considering the erection of a grain elevator in the east part of this city.

Dallas, Tex.—Morris & Co., 209 S. La Salle St., Chicago, Ill., reported to have secured a site at N. Lamar and Cochran Sts., on which to erect a packing plant costing $75,000.

Spokane, Wash.—Carstens Packing Co. (Thos. Carstens, Pres.) reported contemplates improvements at a cost of $40,000 which will include a fertilizer plant for handling of refuse from packing plant.

MISCELLANEOUS.

See also "Hydraulic Construction and River Improvements."

Items Arranged Geographically

Lighting Fixtures, New York, N. Y.—Bids desired until June 3 by Jas. A. Wetmore, Acting Superv. Archt. Washington, D. C. for furnishing and installing new lighting fixtures in U. S. Sub-treasury, New York, advertised in Engineering Record.

Fences for Water Board—New York, N. Y.—Following are approximate totals of 4 lowest bids opened May 4 by Bd. Water Supply, Municipal Bldg., New York, for Contract 143, furnishing and erecting about 15 miles of wire fence, with concrete posts and short lengths of concrete and wood guard rails, etc., at Ashokan reservoir, in towns of Olive, Marbletown and Hurley, Ulster County: Z. Boice, Kingston, $38,680; Abner Harper, Newburgh, $41,470; M. P. Moran, Brooklyn, $43,055, and Ward & Tully, Brooklyn, $42,122.

Test Piles, Etc., Ridgefield Park N. J.—Bids desired until May 18 by Bd. Village Comrs. for excav. testpits and driving test piles, advertised in Engineering Record. M. D. Starker, Village Clk.

★**Floating Cranes—Norfolk, Va.**—Contract reported awarded by Navy Dept. Apr. 26 on bids opened at Washington, D. C., Feb. 27, for a 150-ton floating revolving crane for delivery at the navy yard, Norfolk, to Wellman-Seaver-Morgan Co., 50 Church St., New York, at about $323,000.

Booms, Concrete Mixers, Etc. Memphis, Tenn.—Bids desired until May 21 by Maj. E. M. Markham, Corps Engr., U. S. A., Mississippi River Comn. 1st and 2d Dists., Memphis, for furnishing and delivering booms, hoisting engines concrete mixers, etc., advertised in Engineering Record.

★**Cement—Louisville, Ky.**—Contract for furnishing American Portland cement for dam 43, Ohio River (bids opened Apr. 19), has been awarded to the Cosmos Portland Cement Co., Louisville, at $55,080.

Flushing Machines—Massillion, O.—This city will purchase 2 flushing machines. Address H. N. Elsass, Dir. Pub. Service.

Municipal Bonds—Taylor, Tex.—Citizens voted to issue $100,000 bonds for municipal improvements, and bids for bonds desired by A. V. Hyde, City Clk., until May 10.

★**Insulation in Storage Bldg.—Seattle, Wash.**—Contract awarded by Port of Seattle Comn., Central Bldg., Apr. 28, for insulation in Fruit Storage Bldg., to Harrington-Peters Co., Oriental Bldg., Seattle, at $104,000, using cork insulation.

Sheet Iron or Steel, Etc.—Panama.—See "Water."

Proposals

For Proposals Advertised see Pages 66, 67, 68 and 69.

WATERWORKS.

Bids Close		See Eng. Record.
May 11.	Well, Nevada, Ia.	May 1
May 11.	System, Orion, Mich.	May 8
May 12.	Pump. Unit, Ottawa, Ont.	Apr. 24
May 13.	Pipe, Panama	May 8
May 14.	System, Walterboro, S. C.	Apr. 24
May 14.	Water Wks., Ravenswood, W. Va.	May 8
May 14.	Water Wks. Material, Boswell, Okla.	May 8
May 14.	Pipe, Chicago, Ill.	May 8
May 14.	Pipe, Lorton, Va.	May 8
May 15.	**Pumping Station, Binghamton, N. Y.** Adv. May 1, 8.	**Apr. 3**
May 15.	System at Naval Radio Sta., San Diego, Cal.	Apr. 17
May 15.	Water Wks. Material, Plant City, Fla.	May 8
May 15.	C. I. Pipe, Philadelphia, Pa.	May 8
May 15.	Pump Mach., Transcona, Man.	May 8
May 17.	Road at Reservoir, Hartford, Conn. Adv. May 1, 8.	May 1
May 17.	Improv. to Water Works, Bluffton, O. Adv. May 1.	May 1
May 17.	Reservoir, Salem, Mass. Adv. May 8.	May 8
May 17.	Add. to System, South Stillwater, Minn.	May 8
May 17.	Filtration Plant, Brockville, Ont.	May 8
May 17.	Tanks and Towers, Petersburg, Va.	May 8
May 17.	Pumps, Orillia, Ont.	May 8
May 18.	Mains, Rocky River, O.	May 1
May 18.	Improv., Paris, Ill.	May 1
May 18.	Mains, Etc., Belzoni, Miss.	May 8
May 20.	Pipe, Etc., Panama	May 8
May 21.	Pipe Drains for Filtration Plant, Cleveland, O.	May 8
May 24.	System, Colo, Ia. Adv. May 8.	May 8
May 24.	Water Wks., Ceresco, Neb.	May 8
May 25.	C.-I. Pipe, Philadelphia, Pa. Adv. May 1, 8.	May 1
May 25.	Water Wks. Plant, Onslow, Ia.	May 8
May 26.	Improvements, Albion, N. Y. Adv. May 8.	May 8
Jun. 5.	Improvements to Water Wks., Plant City, Fla. Adv. May 8.	May 8

SEWERAGE AND SEWAGE DISPOSAL.

May 10.	Bridgeport, Conn. Adv. Apr. 24.	Apr. 24
May 11.	Newark, N. J.	Apr. 24
May 11.	Cincinnati, O.	May 1
May 11.	Toronto, Ont.	May 8
May 11.	Palisades Park, N. J.	May 8
May 11.	Glencoe, Ill.	May 8
May 12.	Limon, Colo.	May 1
May 12.	Brooklyn, N. Y.	May 1
May 12.	West Chester, Pa. Adv. May 1, 8.	May 1
May 12.	Siloam Springs, Ark.	May 1
May 12.	Washington, D. C. Adv. May 1.	May 1
May 12.	Valley Falls, Kan.	May 8
May 14.	Walterboro, S. C.	Apr. 24
May 14.	Huntington, N. Y. Adv. Apr. 24.	Apr. 24
May 14.	Milwaukee, Wis. Adv. May 1, 8.	May 1
May 14.	Ravenswoods, W. Va.	May 8
May 14.	Chicago, Ill.	May 8
May 15.	**San Diego, Cal.**	**Apr. 17**
May 15.	Olean, N. Y.	May 1
May 15.	South Bend, Ind. Adv. May 1, 8.	May 1
May 15.	South Bend, Ind.	May 8
May 15.	Transcona, Man.	May 8
May 15.	Stratford, Ont.	May 8
May 18.	Toledo, O.	May 8
May 18.	Hartley, Ia.	May 8
May 19.	Fitchburg, Mass.	May 8
May 21.	Oconomowoc, Wis.	May 8
May 24.	Ebensburg, Pa. Adv. May 8.	May 8
May 24.	Greenwich, Conn. Adv. May 8.	May 8
May 25.	Wilkesbarre, Pa. Adv. Apr. 17, May 1.	Apr. 17
May 25.	Easton, Md. Adv. May 1.	May 1
May 25.	Rittman, O. (2 Prop.) Adv. May 8.	May 8
Jun. 9.	Struthers, O.	May 8

BRIDGES.

May 11.	Forest City, Ia. Adv. Apr. 24, May 1.	Apr. 24
May 11.	Washington, Pa.	Apr. 24
May 11.	Forney, Tex.	May 1
May 11.	Beatrice, Neb.	May 8
May 11.	Marysville, Kan.	May 8
May 11.	Illinois	May 8
May 11.	Leavenworth, Kan.	May 8
May 11.	Wascott, Wis.	May 8
May 12.	Illinois	May 8
May 13.	York, Pa.	May 8
May 14.	Easton, Pa.	May 1
May 14.	Indiana	Apr. 24
May 14.	East Chicago, Ind.	May 8
May 14.	Reading, Pa.	May 8
May 14.	Illinois	May 8
May 15.	Illinois	May 8
May 17.	Converse, Ind.	May 8
May 17.	East Gary, Ind.	May 8
May 19.	Lisbon, N. D.	May 8
May 20.	Manhattan, Kan.	May 8
May 20.	Nebraska City, Neb.	May 8
May 21.	Rome, Ga.	May 1
May 21.	North Platte, Neb.	May 1
May 21.	Wayne, Neb.	May 8
May 21.	Reading, Pa.	May 8
May 21.	Michigan	May 8
May 22.	Le Roy, N. Y. Adv. May 8.	May 8

PAVING AND ROADS.

May 11.	Albany, N. Y. Adv. Apr. 24, to May 8.	Apr. 24
May 11.	Washington, Pa.	Apr. 24
May 11.	Frederick, Md.	Apr. 24
May 11.	Anderson, S. C. Adv. May 1, 8.	May 1
May 11.	Linden, Ala.	May 1
May 11.	Concrete, Wash.	May 1
May 11.	Cambridge, Md.	May 1
May 11.	Forney, Tex.	May 1
May 11.	Elyria, O.	May 1
May 11.	Elizabeth, N. J.	May 8
May 11.	Omaha, Neb.	May 8
May 11.	Evansville, Ind.	May 8
May 11.	Elyria, O.	May 8
May 11.	Kansas City, Mo.	May 8
May 11.	Massachusetts	May 8
May 11.	Mt. Carmel, Ill.	May 8
May 12.	Forest City, Ia.	May 1
May 12.	Moline, Ill.	May 8
May 12.	Canastota, N. Y. Adv. May 8.	May 8
May 12.	Canton, O.	May 8
May 12.	New Haven, Conn.	May 8
May 13.	Bucyrus, O. Adv. May 8.	May 8
May 13.	Brooklyn, N. Y.	May 8
May 13.	Towson, Md.	May 8
May 13.	Jersey City, N. J.	May 8
May 13.	Richmond, Ind.	May 8
May 14.	**Toledo, O.**	**Apr. 17**
May 14.	Cincinnati, O.	Apr. 24
May 14.	Pittsburgh, Pa.	May 8
May 14.	Bluefield, W. Va.	May 8
May 14.	Troy, N. Y.	May 8
May 14.	Oswego, N. Y. Adv. May 8.	May 8
May 14.	Ohio	May 8
May 14.	Indianapolis, Ind.	May 8
May 15.	**Newton, Kan.**	**Apr. 10**
May 15.	Baton Rouge, La.	May 1
May 15.	Betterton, Md. Adv. May 8.	May 8
May 15.	Oconomowoc, Wis.	May 8
May 15.	Newport, Wash.	May 8
May 17.	Colfax, Wash.	Apr. 17
May 17.	**Kinsman, O.**	**Apr. 24**
May 17.	Hartford, Conn. Adv. May 1, 8.	May 1
May 17.	Franklin, La.	May 1
May 17.	Seattle, Wash.	May 1
May 17.	Center City, Minn.	May 8
May 17.	Franklin, La.	May 8
May 17.	Danville, Ill. Adv. May 8.	May 8
May 17.	Westfield, N. J.	May 8
May 17.	Walla Walla, Wash.	May 8
May 17.	Los Angeles, Cal.	May 8
May 17.	Kalama, Wash.	May 8
May 18.	Columbus, O.	May 1
May 18.	Albany, N. Y. Adv. May 1, 8.	May 1
May 18.	Charleston, S. C. Adv. May 1, 8.	May 1
May 18.	Toledo, O.	May 8
May 18.	Columbus, O.	May 8
May 18.	Storm Lake, Ia.	May 8
May 19.	Bexley, O.	May 8
May 19.	Maine Adv. May 8.	May 8
May 19.	Baltimore, Md.	May 8
May 20.	Mansfield, O.	May 1
May 20.	Tacoma, Wash.	May 8
May 20.	Illinois	May 8
May 21.	Washington, D. C. Adv. May 1. (2 Prop.)	May 1
May 21.	Albany, N. Y. Adv. May 1, 8.	May 1
May 21.	Spokane, Wash.	May 8
May 22.	Huntsville, Ala.	May 8
May 22.	Lake Geneva, Wis.	May 8
May 24.	Washington	May 8
May 24.	Seattle, Wash.	May 8
May 24.	Everett, Wash.	May 8
May 24.	California	May 8
May 25.	Tuscaloosa, Ala.	May 8
May 28.	Hackensack, N. J.	May 1
May 31.	Selma, Ala.	May 8
Jun. 7.	Ellensburg, Wash.	May 8
Jun. 3.	**Grinnell, Ia.**	**Apr. 17**
Jun. 7.	Hazlehurst, Miss.	May 1
Jun. 9.	Struthers, O.	May 8

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

May 10.	Revetment and Dike, Kansas City, Mo. (Two prop.) Adv. Apr. 10 to May 1.	Apr. 10
May 12.	**Irrigation, Saco, Mont.** Adv. Apr. 10.	**Apr. 10**
May 12.	Needle Valve Outlets, Phoenix, Ariz.	Apr. 24
May 12.	Levee Work, Clarksdale, Miss.	May 1
May 13.	Dredging, Atlantic City, N. J. Adv. May 1.	May 1
May 14.	**Ditch, Dyersburg, Tenn.**	**Apr. 24**
May 14.	Stone for Revetment Wk., Vicksburg, Miss. Adv. May 8.	May 8
May 15.	Dredging, Estherwood, Ia.	May 1
May 15.	Boat Landings, Etc., Kingston, N. Y.	May 1
May 17.	Drainage, Donna, Tex.	May 1
May 18.	Wharf, Dunkirk, N. Y.	May 1
May 18.	Lock Gates for Dams, Wheeling, W. Va. Adv. May 1, 8.	May 1
May 18.	Dredging and Seawall, Ellis Island, N. Y. 2 Props. Adv. May 8.	May 8
May 19.	**Breakwater, Detroit, Mich.** Adv. April 17, 24, May 8.	**Apr. 17**
May 19.	Hull for Dredge, Louisville, Ky. Adv. Apr. 24 to May 8.	Apr. 24
May 19.	Irrigation Wk., Payson City, Utah	Apr. 24
May 19.	Steel Pile Bulkhead, Etc., Cleveland, O.	May 8
May 20.	Breakwater, Marblehead, O. Adv. Apr. 24 and May 1.	Apr. 24
May 20.	**Crib Work, Detroit, Mich.** Adv. Apr. 17, 24, May 8.	**Apr. 17**
May 20.	Dike, Kansas City, Mo. (2 Prop.) Adv. Apr. 24, to May 8.	Apr. 24
May 22.	Ditch, Dansville, Ill.	May 8
May 24.	**Dike, Kansas City, Mo. (2 Prop.)** Adv. Apr. 24, to May 8.	**Apr. 24**
May 24.	Lock, Detroit, Mich. Adv. Apr. 17, 24.	Apr. 17
May 26.	Levee Wk., Memphis, Tenn. Adv. May 1, 8.	May 1
May 28.	Dredge, New York, N. Y. Adv. May 1, 8.	May 1
Jun. 1.	Drainage Ditches, Bartow, Fla. Adv. May 1, 8.	May 1
Jun. 2.	Water Turbines, Etc., Wheeling, W. Va. Adv. May 8.	May 8
Jun. 4.	Mitering Guard Gates, Louisville, Ky. Adv. May 8.	May 8
Jun. 15.	Excav. for Earth and Rock, Detroit, Mich. Adv. May 8.	May 8

PUBLIC BUILDINGS AND SCHOOLS.

May 11.	Corpus Christi, Tex.	Apr. 17
May 11.	Newark, N. J.	May 1
May 11.	Milwaukee, Wis.	May 1
May 11.	Lebanon, Pa.	May 8
May 11.	Seymour, Ind.	May 8
May 11.	Highland Park, Ky.	May 8
May 11.	Pittsburgh, Pa.	May 8
May 12.	Bryan, Tex.	Apr. 10
May 12.	**Homestead, Pa.**	**Apr. 24**
May 12.	Independence, Kan.	May 8
May 12.	Ashtabula, O.	May 8
May 12.	Peoria, Ill.	May 8
May 13.	Park City, Utah	Apr. 10
May 13.	Hudson, Pa.	May 8
May 13.	Toronto, Ont.	May 8
May 13.	New York, N. Y.	May 8
May 13.	Sault Ste. Marie, Ont.	May 8
May 13.	Detroit, Mich.	May 8
May 13.	Los Angeles, Cal.	May 8
May 14.	New Haven, Conn.	Apr. 10
May 14.	Aberdeen, S. D.	Apr. 17
May 14.	**Eau Gallie, Fla.**	**Apr. 24**
May 14.	Ellensburg, Wash.	May 1
May 14.	Bonaparte, Ia.	May 8
May 14.	Otjen, Wis.	May 8
May 14.	Swarthmore, Pa.	May 8
May 15.	San Antonio, Tex.	Apr. 24
May 15.	Memphis, Tenn.	May 8
May 15.	Lawton, Okla.	May 8
May 15.	Columbiana, O.	May 8
May 15.	Huntington Beach, Cal.	May 8
May 17.	**Concord, N. H.** Adv. Apr. 10, 17.	**Apr. 10**
May 17.	**Toledo, O.**	**Apr. 24**
May 17.	**Sioux Falls, S. D.**	**Apr. 24**
May 17.	Albany, N. Y.	May 1
May 17.	Lancaster, O.	May 1
May 17.	Savanna, Ill.	May 8
May 17.	Magnolia, Ia.	May 8
May 17.	Elletsville, Ind.	May 8
May 17.	Blackfoot, Idaho	May 8
May 17.	Jacksonville, Fla.	May 8
May 17.	Rivera, Cal.	May 8
May 18.	Laurel, Miss.	Apr. 17
May 18.	Etna, O.	May 1
May 18.	Columbus, O.	May 1
May 18.	Chico, Cal.	May 8
May 18.	Grand Mere, Que.	May 8
May 18.	Los Angeles, Cal.	May 8
May 18.	Redondo Beach, Cal.	May 8
May 19.	Springfield, O.	May 1
May 20.	Pendleton, Ore.	May 1
May 21.	**Pittsburgh, Pa.** Adv. Apr. 24, to May 8.	**Apr. 24**
May 21.	Westerville, O.	May 1
May 22.	New Madrid, Mo.	May 8
May 24.	Independence, Ia.	May 1
May 24.	Front Royal, Va. Adv. May 1, 8.	May 1
May 24.	Havre, Mont.	May 1
May 24.	Atlanta, Ga.	May 8
May 24.	Paterson, N. J.	May 8
May 25.	Calgary, Alta.	May 1
May 25.	Lakewood, O.	May 1
May 25.	Redwood Falls, Minn.	May 1
May 25.	Arcadia, Fla.	May 8
May 25.	Irwin, Pa.	May 8
May 26.	**La Salle, Ill.**	**Apr. 24**
May 26.	Ft. Hancock, N. J. Adv. May 1, 8.	May 1
May 27.	Milwaukee, Wis. Adv. May 8.	May 8
May 27.	South Bethlehem, Pa.	May 8
May 27.	Ripley, O.	May 8
May 27.	Ashville, O.	May 8
May 28.	Ft. Terry, N. Y. Adv. May 1, 8.	May 1
May 28.	Madison, S. D.	May 8
May 29.	Bremerton, Wash.	May 8
Jun. 1.	Harrisburg, Pa.	Mar. 13
Jun. 1.	Urbana, Ill.	May 8
Jun. 1.	Cleveland, O.	May 8
Jun. 2.	Longview, Tex.	May 1
Jun. 3.	Chillicothe, Mo.	Apr. 24
Jun. 3.	Corning, O.	May 8
Jun. 7.	Oklahoma City, Okla.	May 8
Jun. 8.	Reading, Pa.	May 8
Jun. 14.	Marlin, Tex.	May 8
Jun. 14.	Tampa, Fla. Adv. May 8.	May 8
———	Greenville, S. C. Adv. May 1.	May 1

PRIVATE BUILDINGS.

May 12.	Wilkinsburg, Pa.	May 1
May 13.	Wooster, O.	May 8
May 14.	Renville, Minn.	May 8
May 15.	Lindstrom, Minn.	May 1
May 15.	Duluth, Minn.	May 8
May 15.	Stanley, Wis.	May 8
May 17.	Plainview, Minn.	May 8
May 17.	Elgin, Minn.	May 8
May 20.	Belleville, Ont.	May 8
May 25.	Viola, Wis.	May 8

MISCELLANEOUS.

May 12.	Street Cleaning, Cincinnati, O.	May 1
May 13.	**Scows, Louisville, Ky.** Adv. Apr. 17, to May 8.	**Apr. 17**
May 15.	Rock Tunnel, Wilkes-Barre, Pa. Adv. May 1.	May 1
May 18.	El. Ry., Sec. 2, Route 49, Brooklyn, N. Y. Adv. May 1, 8.	May 1
May 18.	Excav. Test Pits and Driving Piles, Ridgefield Park, N. J. Adv. May 8.	May 8
May 21.	Booms, Concrete Mixers, Etc., Memphis, Tenn. Adv. May 8.	May 8
May 26.	Lighters, Savannah, Ga. Adv. May 1, 8.	May 1
May 26.	**Stone and Cement, Wilmington, N. C.** Adv. May 1, 8.	**May 1**
May 29.	Steel Towers, Point Isabel, Tex.	May 1
Jun. 3.	Lighting Fixtures in Pub. Bldg., New York, N. Y. Adv. May 8.	May 8

★*Items marked thus give the names of parties awarded contracts.*

New Construction Activities

Unfilled orders of the United States Steel Corporation decreased 93,505 tons, or more than 2 per cent, during April, and shipments decreased slightly at the same time. The rate of shipments for the first week in May has increased, due to increased specifications against orders, and a still greater falling off in unfilled orders by June 1 is quite possible. This, however, is having no effect on prices, and a slight advance has even been made by the tube mills. Structural orders received during the first ten days of May have totaled 35,000 tons—much heavier than the April rate.

Prices in the Chicago lumber market are holding firm, and a short strike of mill operatives has been terminated by the signing of a three-year contract. The local Chicago demand for timber for building and structural purposes is still light, owing to the strike in the building trades. Factories and car shops are placing large orders in that district. It is said that a new mill in Washington with a capacity of 400,000 ft. b. m. per day will be put in operation June 1.

According to a concern engaged in producing electric power throughout the Central, Northern and Western States, both bank deposits and power consumption are on the increase in this section, and a very good agricultural season is promised in addition.

Buildings

Among the building contracts awarded last week were one for erecting a $500,000 factory for the Baldwin Locomotive Works at Eddystone, Pa. The low bid on a high school building at Worcester, Mass., was $199,985. That on a similar building at Trenton, N. J., was $216,000. A hospital building has been contracted for at Hamilton, Ont., at $99,500, and a similar building at Norwalk, Cal., will cost $114,800. A $100,000 contract for erecting a college building at Northfield, Minn., has been awarded, and a $170,000 high school building has been contracted for at Grand Forks, N. D. The low bid for erecting a court house at Walla Walla, Wash., was $137,000. Bids are asked on a municipal court building to be built at Detroit. A $300,000 bank building will be let to-day at Evansville, Ind. New bids are desired on an educational building in Toronto, for which $100,000 has been appropriated. Money to purchase a site for a $200,000 armory has been appropriated in Philadelphia. A $400,000 bond issue for erecting a school building has been appropriated in Buffalo. Plans are being prepared for a $260,000 club building in Chicago. Plans are being prepared for a 16-story building in New York City to cost $750,000. Plans have been filed for two 12-story buildings in the same city, one of which will cost $400,000 and the other $500,000. The School Board of Indianapolis will soon ask bids on library bonds in the sum of $500,000.

Bridges and Roads

Bids have been opened on bridge work totaling $60,000 at Dayton, Ohio. A small bridge contract was awarded at Northampton, Mass., and another at Canton, N. Y. Bids are asked on a highway drawbridge of some size at Lake Charles, La. A $200,000 bridge across the Arkansas River is under consideration at Tulsa, Okla. A $400,000 bridge over the Monongahela River is contemplated at Fairmont, W. Va.

Bids on more than $1,230,000 worth of road work were opened May 5 by the New York State Highway Commissioners. Further State contracts were awarded in both Massachusetts and Illinois. A $117,000 contract was awarded at Sparkville, Miss., and the low bid for road work in Alexandria, La., opened May 3, was $83,600. A $75,000 highway contract was awarded at Akron, Ohio. A contract is about to be let for concrete paving to cost $150,000 at Detroit. Bids will be opened June 1 on further State highway work at Albany, N. Y. Bids are desired until May 18 for further State highway work by Massachusetts. Bids are desired for 112,000 sq. yd. of concrete paving in Milwaukee. The State highway commissioner of Washington will let contracts for 15 miles of work on June 1. Bids are desired at St. Lamberts, Que., for paving work to cost $227,000. The letting of 174 miles of road near Danville, Ill., advertised in the May 8 issue of the Engineering Record, has been held up by a suit brought against the county. Paving and road work to be completed this year in and around Portland, Ore., will cost $1,250,000. Paving ordinances voted at Seattle call for work which will cost $330,000. The California State Assembly has passed a bill providing for the issue of $12,000,000 in road bonds. A bill providing for a Massachusetts highway bond issue of $2,500,000 has been signed by the Governor. Dayton, Tenn., has sold road bonds totaling $250,000, and Kauffman, Texas, desires bids on an issue amounting to $450,000.

Waterworks and Sewers

It is reported that the recommendations of Allen Hazen for improving the water supply of St. Paul at the cost of $1,500,000 have been adopted by the water board. The reservoir at Fostoria, Ohio, has been contracted for at $51,000. The city council of Ottawa, Ont., has adopted plans for a $400,000 pipe line. Bids are desired for further construction on the Nepaug Reservoir at Hartford, Conn. Bids are desired at Caruthersville, Mo., for laying 3 miles of cast-iron pipe. The loan ordinance passed in Philadelphia and signed by the Mayor provides for $4,325,000 to be spent in municipal construction, of which $1,000,000 is for sewers, and $500,000 for improving the waterworks. A waterworks tunnel contract has been awarded in Milwaukee. Dayton, Ohio, will issue waterworks bonds in the sum of $135,000. Baltimore has awarded a $92,000 sewer contract, and a $64,000 contract has been awarded at Reading, Pa. The low bid on a section of the Passaic sewer, opened in Newark, May 11, was $61,740. Two sewer contracts awarded at Bridgeport, Conn., total $75,000. Bids are desired for a sewage-disposal works at Downingtown, Pa., and for a sewerage system at Kenosha, Wis. It is reported that Macon, Ga., has sold sewer bonds in the sum of $200,000.

Miscellaneous

It is reported that a $3,000,000 industrial plant has been contracted for at Youngstown, Ohio. Steel doors for cotton warehouses under construction at New Orleans have been contracted for at $86,000. A $350,000 addition to the steam plant of the city of Seattle has been recommended. The low bid on furnishing stone for jetty construction to the United States Government at Lone Tree, Wash., was $310,000. Application has been made at Seattle for a franchise to construct a $15,000,000 tunnel. The Jamaica Bay improvement of the Brooklyn waterfront has been approved by the Sinking Fund Commission. The city has already appropriated $10,000,000 and the Federal Government $850,000 for the necessary construction work, which will now be pushed to completion.

WATERWORKS.

Items Arranged Geographically

Newton, Mass.—Lowest bid opened by Metropolitan Water and Sewerage Bd., Boston, May 10, for laying c. i. water pipe in Newton, submitted by Chas. A. Kelly, Somerville, at following bid: 6370 lin. ft. 60-in. c. i. pipe, $3.75; 90 lin. ft. 12 and 16-in. pipe for blow offs, $1.50; 220 cu yds. rock excav. above grade, $5; 5 cu. yds. rock excav. below grade, $5; 30 cu. yds. earth excav. below grade, $1; 8 chambers for air valves, $60; 5 chambers for blow offs and bypass valves, $60; 2 chambers for 36-in. valves, $60; 110 cu. yds. concrete masonry, $10; total, $27,175. Next 3 lowest bids: Jas. P. Kavanagh, Boston, $27,282; Jas. L. Pierce & Co., Boston, $27,527; Coleman Bros., Boston, $27,696.

Pittsfield, Mass.—Finance Com. has recommended an appropriation of $12,000 for a water extension near Pontoosuc Lake.

Shrewsbury, Mass.—All bids opened by Water Comrs. Apr. 24 for constructing water works have been rejected, being considered too high; appropriation available $75,000. Geo. E. Stone, Town Clk.

Hartford, Conn.—Bids desired June 2 by Bd. Water Comrs. (Fred. D. Berry, Secy.) for constructing the east dike Nepaug Reservoir, Contract 9, in town of Canton, Conn., advertised in Engineering Record. Caleb Mills Saville, Ch. Engr., Pilgard Bldg., Hartford.

★Batavia, N. Y.—Contract awarded May 5 for 10,000 ft. 6-in. and 800 ft. 8-in. Class B c. i. pipe to J. H. Bradish, Batavia, at $23 per ton. S. J. Carmichael, City Clk.

Contracting News

Of Special Interest to Engineers, Contractors, Builders and Manufacturers of Engineering and Building Supplies

★Gilbertsville, N. Y.—Contract awarded May 6 by Bd. Village Trus. (E. M. Holden, Clk.) to Suburban Eng. Co., New York, at $17,787. Other bidders: Chas. R. Lewis, Utica, $19,382; Saml. Bonn, Syracuse, $19,474; Young & Hyde, Inc., New York, $20,237; John J. Fitzpatrick & Sons, Plattsburg, $20,315. Chas. E. Perry, Consulting Engr., 102 Hudson Ave., Albany.

★North Gates, N. Y.—Contracts awarded Apr. 27 by Water Comrs., North Gates Water Dist. (R. B. Wilson, Chmn., 815 German Insurance Bld., Rochester), for constructing system of water works, from plans of H. C. Kittredge, 815 German Insurance Bldg., Rochester, as follows: Furnishing Cast Iron Pipe & Specials to U. S. Cast Iron Pipe & Fdry. Co.; Valves to Chapman Valve Co.; Hydrants to Ludlow Valve Co.; and laying pipe, valves and hydrants to Comillo Molinari, 453 North St. Rochester, N. Y.

Atlantic Highlands, N. J.—Bids desired until May 25 by W. T. Franklin, Boro. Clk., for installation of 1½ miles 4 to 8 in. c. i. water mains, advertised in Engineering Record.

★Perth Amboy, N. J.—Peter Kroeger, Clk. Bd. Water Comrs., writes that contract for 12,000,000-gal. pumping engine has been awarded to Allis-Chalmers Co., Milwaukee, Wis., at $32,205.

Wildwood, N. J.—Citizens voted May 4 to purchase plant and holdings of Wildwood Water Co., at $554,000 for the plant and $26,000 for installation of a new fire main on Park Boule. and additional fire hydrants throughout city.

★Erie, Pa.—Contract awarded by Water Works Comrs. for 2 40 ft. extension to the high service standpipe to the Pittsburgh Des Moines Steel Co., Pittsburgh. Work under supervision of Chester & Fleming, Pittsburgh.

Gallitzin, Pa.—D. W. Dillman, of Altoona, preparing plans for proposed water works, to cost $60,000.

Mifflinburg, Pa.—It is proposed to construct a 5,000,000-gal. reinforced concrete reservoir. Alex Potter, Consulting Engr., New York.

★Mt. Gretna, Pa.—Contract for construction of a 150,000 gal. reservoir on State rifle range reservation, reported awarded to Emanuel Keener of Colebrook.

Philadelphia, Pa.—Mayor Blankenburg has signed the $4,325,000 loan ordinance as passed by Select and Common Councils to include the following: $500,000 for main sewers; $500,000 for intercepting sewers along Frankford Creek; $300,000 for branch sewers; $400,000 for bridges; $425,000 for grade crossing removals; $400,000 for grading streets; $20,000 for paving intersections; $100,000 for improving county roads; $500,000 for improving waterworks; also for recreations centers and county prisons.

★Polk, Pa.—Contract awarded by the State Institution for the new motor-driven electric pump for the water supply to the Alberger Pump Co., New York; work is under supervision of Chester & Fleming, Engrs., Pittsburgh.

Ridgway, Pa.—Bids desired June 1 by G. F. Greiner, Secy. Town Council for constructing an addition to the present filter plant, including in general a sedimentation basin, clear water basin with 2 superimposed filter units, and a filter building, advertised in Engineering Record. F. W. Ward, Boro Engr., Rm. 10, Masonic Temple, Ridgway.

Somerset, Pa.—Bids desired by Co. Comrs. May 20 for constructing a reservoir, dam and pipe line to supply and furnish water to the County Home Farm, 2 miles east of Somerset. Separate bids will be received for the construction of the reservoir, dam and pipe line, and for the pipe line, the county to furnish the pipe. L. M. Phillips, Co. Clk.

★Items marked thus give the names of parties awarded contracts.

Frederick, Md.—Bids desired May 28 by Bd. Aldermen for furnishing and laying 12 in. c. i. pipe, special castings, valves, etc., advertised in Engineering Record. Wm. H. Boardman, Engr., 426 Walnut St., Philadelphia, Pa.; Geo. A. Burck, Water Wks. Supt.

Maryland.—During April the following water supply permits were issued by the Maryland State Department of Health (Robt. B. Morse, Ch. Engr., 16 W. Saratoga St., Baltimore):

Roland Park Water Co., Roland Park (P. O. Baltimore)—Use of additional source of supply.

Suburban Water Co., Arlington—Use of additional source of supply.

Boonsboro Water Co., Boonsboro—Development of additional source of supply.

East New Market—Permit for installation of water works.

Chestertown—New source of water supply and proper storage facilities.

Westernport—Purification of supply and proper storage facilities.

Perryville Water Co.—Construction of purification works.

Wilmington, Del.—The Bd. of Water Comrs. estimate cost at $55,000 to install water mains and do certain renewal work.

★**Galax, Va.**—Contract has been awarded to R. L. Blevins, Bristol, Tenn., for pumps, 45 hydrants and a reservoir. Cost about $16,000. B. D. Beamer, City Clk.

Salisbury, N. C.—City Clerk writes that probably late in the fall the water mains will be extended to river, about 6 miles.

Lakeland, Fla.—Bonds in the sum of $135,000 reported sold, to be used for extension to water works and electric light plant.

Lake Worth, Fla.—Council considering question of issuing $75,000 bonds for installation of an electric lighting plant and waterworks.

Ocala, Fla.—City Council reported to have engaged Twombly & Henney, 55 Liberty St., New York, to take charge of engineering work of proposed improvements to municipal lighting plant and waterworks system, cost about $75,000.

Oberlin, La.—Question of constructing water works and electric light plant being considered. W. D. Stockwell, Mayor.

Cleveland, O.—Bids desired until May 20 by A. R. Callow, Comr. Purchases and Supplies, for 2 steam-driven centrifugal feed pumps for Division Ave. Pumping Station; also a cantilever runway for Crib No. 5, Dept. Water.

Dayton, O.—Bonds in the sum of $135,000 are about to be issued for further extending water system.

★**Fostoria, O.**—Contract awarded by Bd. Pub. Service, for construction of a 75,000,000-gal. reservoir of earth embankment, 113,000 cu. yds., lined with riprap or concrete, 20,000 sq. yds., to J. H. Jones, of Fostoria, at about $50,865 (bids opened Apr. 20). Chas. Latshaw, City Engr.

★**Schoolcraft, Mich.**—Contracts awarded Apr. 27 for constructing water works as follows: Memphis Steel Constr. Co., Pittsburgh, Pa., for 60,000-gal. tank; Luitweilder Pumping Engine Co., Rochester, N. Y., pump and motor; Epping-Carpenter Pump Co., Pittsburgh, Pa., steam pump; T. C. Brooks Sons & Co., Jackson, Mich., general contract of furnishing and laying pipe, etc. O. A. Fellows, Village Clk. Engineers, Smith & Boulay, of Toledo, O.

Area, Ill.—Bids desired until 8 p. m. May 17 by Bd. Local Improv. for constructing water works advertised in Engineering Record. T. F. Swan, Village Clk.; Engineer, W. H. Studer, of Libertyville.

Aurora, Ill.—Bids desired until May 28 by Bd. Pub. Wks., for drilling a well approximately 2200 ft. deep, cased with 18-in. o. d. pipe below the first shale (about 300 ft.), and finish at the bottom with a 12-in. hole.

Berwyn, Ill.—Bids desired until May 18 by Bd. Local Improv. (Oscar N. Lindahl, Secy.), for constructing water supply pipes in Lombard Ave. and other streets. Arthur R. Wolfe, Engr., 39 S. LaSalle St., Chicago.

★**Joliet, Ill.**—Contract reported awarded for constructing city reservoir to Foley Constr. Co. of Chicago, Ill., at $20,300.

Appleton, Wis.—Bids reported desired May 24 by E. L. Williams, City Clk., for $75,000 water works improvement bonds.

Bloomington, Wis.—Bids desired May 18 by Village Council for constructing water works, including distribution pipe system, 60,000 gals. reinforced concrete tower and tank, brick pump house and suction well, pumping plant, deep well. L. P. Wolff, Consulting Engr., St. Paul, Minn.

★**Milwaukee, Wis.**—Fred G. Simmons, Comr. Pub. Wks., writes contract has been awarded for constructing shore tunnel and shafts of Linnwood Ave. intake to O'Brien & Jackson Constr. Co., 22 La Salle St., Chicago, at $41.90 per lin. ft. (bids opened Apr. 19).

Cresco, Ia.—Bids desired until June 1 by M. J. McArthur, City Clk., for constructing a 100,000-gal. steel tank on a 100-ft. steel tower, building concrete foundations and taking down an old standpipe. H. H. Howe, Engr., Cresco.

★**Morning Sun, Ia.**—Contract awarded May 3 for constructing water works to Public Service Constr. Co., of Omaha, Neb., at $13,370. Engineers, Harper & Stiles, Grand Ave. Temple, Kansas City, Mo.

St. Paul, Minn.—Allen Hazen, of New York, in a report submitted to Water Board, May 3, on the supply and future needs of city water system, recommends improvements to cost $1,591,000, including the following: A storage reservoir on Rice Creek, 14.73 billion gals., cost $489,000; 30,000,000-gal. high-service reservoir, cost $260,000; to erect at McCarron's lake a filtration plant, 35,000,000 gals. daily capacity, cost $475,000; a pure water covered reservoir, 30,000,000 gals. capacity, cost $30,000; an aerator, pump and connections, cost $25,000; a covered low-service reservoir at $25,000; addition to pumping station and 15,000,000-gal. high-service pump and two 6,000,000-gal. low-service pumps, cost $70,000, and a system of piping from low-service lift pumps to the low-service reservoir, cost $10,000.

Local press reports state that the Water Bd. has voted to carry out the recommendations of Allen Hazen, of New York, and immediate steps will be taken to improve the quality of the city water supply, pending establishment of a filtration plant.

Watkins, Minn.—C. H. West of St. Cloud, reported to have been engaged to advise city on the construction of municipal water works and electric light plant.

Sterling, Neb.—Grant & Fulton, of Lincoln, engaged to prepare plans for water works, to cost about $17,000. Wm. Hitchcock, City Clk.

Sykeston, N. D.—Plans being prepared by C. H. Green, 150 Stevens St., Spokane, Wash., for proposed water works; cost about $14,000. Chas. L. Smith, City Clk.

Irene, S. D.—Citizens voted $13,500 bonds for the construction of water

Sioux Falls, S. D.—Citizens have voted to issue $140,000 bonds for extension to water works, from plans of Daubny H. Maury, of Chicago, Ill. Bids for bonds to be received June 7. Walter C. Leyse, City Aud.

Crow Agency, Mont.—Bids desired May 29 by J. B. Houston, Depot Q. M. U. S. A., Washington, D. C., for installing a water system at the Custer Battlefield National Cemetery, Crow Agency, Mont., advertised in Engineering Record.

Harlowton, Mont.—Bonds in the sum of $15,000 reported sold, to be used for water works.

Wilboux, Mont.—Town Clerk writes plans being prepared by W. S. Green, of Spokane, Wash., for water works to cost $26.000, and sewer system $14,000. Election July 1.

Caruthersville, Mo.—Bids desired June 2 by W. D. Byrd, Mayor, for extensions and improvements to the water works; also same time and place for constructing a sewerage system, advertised in Engineering Record. Frank L. Wilcox, Engr., Syndicate Trust Bldg., St. Louis.

Rockport, Mo.—It is proposed to improve the water works at a cost of $12,000, to include 180 ft. of 6-in. c. i. pipe and 13,500 ft. 4-in. 7000 lbs. specials, 25 4-in. hydrants, 12 4-in. valves and boxes, 1 6 x 8 deep well pump, 1 15 H. P. motor, brick building with foundations. W. B. Rollins & Co., Engrs., 439 Midland Bldg., Kansas City, Mo.

★**Paragould, Ark.**—H. W. Donaldson, Secy. Water Improv. Dist. No. 2, writes contract has been awarded for water works to Reodecker & Connor, of Kansas City, Mo.; cost $28,000. Engineer, W. B. Rollins, of Kansas City, Mo.

Drumright, Okla.—Citizens reported to have voted bonds for the enlargement of the water works.

Lehigh, Okla.—City Council has engaged the Benham Eng. Co., Oklahoma City, to prepare plans and specifications for water works extensions for which $40,000 has been voted.

Prescott, Wash.—Bids reported desired until May 24 by J. C. McSherry for improving the local water system, to include 4200 ft. 6-in. metal pipe, 6200 ft. 4-in. fittings, etc.

Seattle, Wash.—A. H. Dimock, City Engr., has asked City Council for a $25,000 appropriation to continue investigations and experiments at the new masonry dam at Cedar Falls.

Tacoma, Wash.—City Council said to be considering the proposition of placing the city's water-distributing system on meter basis; estimated cost $200,000.

Corvallis, Ore.—G. N. Miller, Burke Bldg., Seattle, Wash., reported to be preparing plans for headworks for water system, to include intake and screen chambers of reinforced concrete; capacity 2,000,000 gals. daily.

Portland, Ore.—It is reported that bids are desired by City Purchasing Agent J. A. Wood for 1600 ft. of 8-in. steel pipe and fittings to be used by Water Dept.

Hull, Que.—Citizens voted May 3 to issue $116,000 bonds for water works extensions and improvements, including installation of an auxiliary turbine pump at power house.

Ottawa, Ont.—City Council has adopted the plans prepared by J. B. McRae for constructing overland intake pipe to Lemieux Island, to cost $413,035, to include lifting crane, $50,000; heating equipment for pumphouse, $5,000; pumps, motors and other equipment for Lemieux Island, $58,500; transformers and electrical equipment for island, $22,800; sub-station and boiler house at island, $10,000; transmission line to Lemieux Island from Chaudiere power station, $10,000; concrete bridge to Lemieux Island, $35,000; pipe line to Bronson Ave., etc.

SEWERAGE AND SEWAGE DISPOSAL.

Items Arranged Geographically

Boston, Mass.—Bids desired May 18 by Patk. A'Hearn, Acting Comr. Pub. Wks., for pipe, sewers and drains in Metropolitan Terrace and Private Land, West Roxbury; Perthshire Road and Lothian Road, Brighton; and in Park and Claybourne Sts., Dorchester.

★**Bridgeport, Conn.**—A. H. Terry, City Engr., writes contract was awarded May 10 for constructing Seaview Ave. sewer to B. D. Pierce, Jr., Co., Bridgeport, at the following bid: 1300 ft. 24-in. tile, $2.97; 1150 ft. 22-in., $2.59; 1550 ft. 20-in., $3.07; 220 ft. manholes, $4; 103 Y branches, $2; 1 connection with old sewer, $7; 350 cu. yds. rock, $4; 20 cu. yds. soft foundation, $2; 10 cu. yds. extra concrete, $7.50; 23 tons c.-i. pipe, $60; 200 lin. ft. piling, $1.50; 120 ft. deep cut connections, 20 cts.; V branch deep cut connections, $1; 8000 cu. yds. dredging, 30 cts.; total $18,600. Next 3 lowest bids: Burns Co., Bridgeport, $20,439; Pierce Mfg. Co., Bridgeport, $21,548; John O. Weston, Yonkers, $23,710.

New Haven, Conn.—Bids desired May 17 by F. L. Ford, City Engr., for constructing sewers and appurtenances in portions of Munson St. and Winthrop Ave. and in Dover St.

Westford, Conn.—The House has passed the bill authorizing construction of sewers and a disposal plant.

Avon, N. Y.—Bids desired until May 24 by Bd. Sewer Comrs. for constructing about 7000-ft. sewer with manholes and flush tanks, advertised in Engineering Record. Wm. H. Clark, Village Clk.

Brooklyn, N. Y.—Bids desired until May 26 (extension of date from May 12) by L. H. Pounds, Boro. Pres., to construct complete superstructures of sewage pumping station, Sect. No. 2, sanitary and storm outlet sewers and the force main in Ave. V, together with all sanitary outlet sewers, storm outlet sewers and the force main and sewage pumping station, etc., within parcel of land between W. 10th and W. 11th Sts., and Ave. V and a line parallel therewith and 200 ft. southerly therefrom. Security $20,000.

Corona, L. I., N. Y.—The Sewer Bureau of Queens Boro., at Long Island City, is reported to have completed plans for constructing a sewer in Polk Ave. from 51st St. to Junction Ave.; estimated cost $45,500.

Long Island City, L. I., N. Y.—Lowest bid opened May 5, by President of Queens Boro. for constructing sewers in Canal and Shaw Aves., Syosset, Yarmouth and other streets submitted by H. J. Mullen Contr. Co. at following bid: 1339 lin. ft. 12-in. vitr. salt-glazed pipe sewer, $1.25; 717 lin. ft. 18-in., $1.75; 18 lin. ft. 20-in., $3; 71 lin. ft. 22-in., $3; 3270 lin. ft. 24-in., $3.65; 140 lin. ft. 2-ft. 9-in. concrete sewer, $5; 250 lin. ft. 3-ft. 3-in., $5; 720 lin. ft. 3-ft. 6-in., $6; 458 lin. ft. 3-ft. 9-in., $6; 250 lin. ft. 4-ft., $8; 580 lin. ft. 5-ft. reinforced concrete sewer, $11; 56 manholes, ea. $50; 60 lin. ft. 12-in. pipe for basin connections, $1; 517 spurs on sewers, ea. $1; 5 chambers, ea. $200; 135 M ft. timber for bracing and sheet piling, $20; 30 cu. yds. concrete, $8; 500 lbs. steel, 5 cts.; 7896 lin. ft. 6-in. pipe for house connection drains, 50 cts.; total $43,819. Next 3 lowest bids: Angelo Paino, Brooklyn, $44,964; Jos. L. Sigretto & Co., Woodhaven, $48,355; Clancy & Nuhn Contr. Co., Long Island City, $48,600.

★**Yonkers, N. Y.**—Contract awarded May 3 by Bd. of Contract and Supply for constructing a sewer in Nepperhan Ave., at $8,775.

Downingtown, Pa.—Bids desired until June 7 by Borough Council (Chas. McFadden, Secy.), for furnishing material and constructing a sewage disposal works and portions of sewerage system, about 7 miles 8 to 18 in., advertised in Engineering Record. Herbert W. Hatton, Consulting Engr., Wilmington, Del.

Montrose, Pa.—Bids for sewage disposal plant and sewers at Montrose will be received by Borough Clerk about June 10; estimated cost, $9,000. V. H. Shaw, Consulting Engr., Lancaster.

Philadelphia, Pa.—See "Water Works."

★**Baltimore, Md.**—Contract awarded by Bd. of Awards Apr. 28 for laying lateral sewers on North Ave. in vicinity of Maryland Ave. and the falls, to Frank Carozza, at $92,239.

Maryland.—During April the following sewerage permits were issued by the Dept. of Health (Robt. B. Morse, Ch. Engr., 16 W. Saratoga St., Baltimore):

Mt. Washington—Extension of sewer system—private enterprise.

Baltimore City — Sewage treatment works at water filtration plant.

Buckeystown—Sewage disposal plant at Buckingham Industrial School.

Roland Park—Extension of sewer system.

Cambridge—Extension of sewer system.

Crisfield—Storm sewer extension.

Crisfield—Sewer construction.

Frostburg—Extension of sewerage system.

Baltimore County — Construction of sewer system and treatment works at Arlington and Govans.

Montgomery County—Construction of sewer system and treatment works for Little Falls Brook drainage area.

Durham, N. C.—Bids desired until May 17 by Geo. W. Woodward, City Clk., for constructing sewer outfall, consisting of approximately 1900 ft. 18-in. and 6000 ft. 12-in. sewer.

★**Macon, Ga.**—Contract reported awarded to Dysard Constr. Co., Atlanta, for building sewer extension through West Vineville, at $8,196.

Bonds in the sum of $300,000 reported sold, to be used for new sewers, street paving and improvements to Macon hospital.

Clearwater, Fla.—It is reported that the sewer system is to be extended.

★**Birmingham, Ala.**—Contract awarded May 4 to American Cast Iron Pipe Co., Birmingham, for construction of sanitary sewers in North Birmingham, at $10,700; work includes 1500 lin. ft. 16-in. c.-i. pipe, 17,000 lin. ft. 8-in. clay pipe, 34 manholes, 240 lin. ft. 4-in. risers, with manholes, rock and waterproofed joints. Julian Kendrick, City Engr.

★**Bridgeport, Conn.**—Alfred H. Terry, City Engr., writes following are unit prices of 4 lowest bids opened May 10 for constructing Housatonic Ave. Sewer: (a) B. D. Pierce, Jr., Co., Bridgeport, $56,886 (awarded contract); (b) Dwyer & Mannix, New Haven, $75,805; O'Neil Bros., Hartford, $75,840; (d) Toole & Sunderlin, Bridgeport, $77,140.

	*(a)	(b)	(c)	(d)
1,620 ft. 48-in. concrete sewer	$10.18	$16.95	$13.00	$13.85
1,880 ft. 45-in. concrete sewer	9.80	9.55	12.00	13.15
200 ft. 42-in. concrete sewer	8.64	9.00	14.00	13.15
66 ft. 20-in. tile sewers	2.40	4.50	3.00	3.60
12 ft. 15-in. tile sewers	2.25	3.00	2.00	3.00
1,825 ft. 12-in. tile sewers	2.60	2.75	6.00	9.25
20 ft. 10-in. tile sewers	2.00	1.00	1.00	3.00
40 ft. 24-in. tile sewers	3.00	3.50	2.00	25.00
375 ft. manholes	4.00	3.50	4.00	4.50
Special manhole and divertor, ea	8.00	75.00	200.00	100.00
Service connection openings, 48-in	1.00	.75	.01	1.00
Connection openings, 45-in	1.00	.75	.01	1.00
Connection openings, 42-in	1.00	.75	.01	1.00
Y branches on 12-in. laterals	1.00	2.00	1.00	.75
25 cu. yds. rock excav	7.00	4.50	8.00	5.00
600 cu. yds. soft foundation	1.75	2.00	2.00	2.00
1.5 cu. yds. reinforced concrete	12.00	15.00	15.00	20.00
10 cu. yds. concrete	7.50	8.00	9.00	10.00
10 cu. yds. brick masonry	20.00	16.00	20.00	22.00
1 M ft. sheathing left in place	30.00	32.00	33.00	35.00
41 M ft. yellow pine timber	68.00	100.00	60.00	80.00
11.75 tons 36-in. cast-iron pipe	60.00	165.00	90.00	100.00
24 tons 30-in. cast-iron pipe	60.00	165.00	100.00	90.00
18 tons 20-in. cast-iron pipe	40.00	165.00	40.00	40.00
11,370 ft. piles	.35	.50	.30	.35
380 ft. 6-in. deep cut connections	.20	.50	.15	.20
7,500 cu. yds. dredging	.30	.30	.35	.28
Catch basins, ea	40.00	50.00	60.00	45.00
50 ft. 8-in. tile	.75	1.50	.80	1.00
1,100 ft. blue stone curb (reset)	.07	.08	.60	.10
100 ft. blue stone curb (new and set)	.60	.45	1.00	1.00
300 ft. concrete curb	.70	.50	.75	1.00
950 sq. yds. tar sidewalk	.06	.45	.35	.60
350 sq. yds. concrete sidewalk	.12	.90	1.00	1.00
Three-way specials for deep cut connections	1.00	1.00	1.00	1.00

★*Items marked thus give the names of parties awarded contracts.*

Newark, N. J.—Following are bids opened May 11 by Passaic Valley Sewerage Comrs., Newark (Wm. M. Brown, Ch. Engr.), for constructing northerly portion of Sec. 19, Acquackanonk-Garfield-Passaic Branch Intercepting Sewer, Boro. Garfield: (a) Harrison & Craig Co., Newark, $61,740; (b) U. S. Drainage & Irrigation Co., New York, $76,870; (c) Culp Co., Inc., Paterson, $76,965; (d) Harrison & Hall, New York, $77,927; (e) Cendella & Co., Passaic, $82,975; Union Bldg. & Constr. Co., Passaic, $88,021; Oscar Daniels Co., New York, $92,322.

Unit prices of 5 lowest bidders, a, b, c, d and e:

	(a)	(b)	(c)	(d)	(e)
2,600 lin. ft. earth excav. and refill., in trench, for 33-in. concrete sewer	$5.75	$8.00	$8.40	$11.66	$9.00
2,833 lin. ft. earth excav. and refill., in trench, for 30-in. concrete sewer	7.25	9.60	9.60	6.89	9.00
907 lin. ft. earth excav. and refill., in trench, for 27-in. concrete sewer	5.00	7.00	6.60	5.56	9.00
460 lin. ft. earth excav. and refill., in trench, for 18-in. vitr. pipe sewer with concrete reinforcement, etc	5.85	5.00	6.75	6.25	9.00
1,850 cu. yds. concrete masonry, in trench	8.50	8.50	7.75	9.00	9.50
200 cu. yds. brick masonry, in manholes, and appurtenant work	15.00	20.00	20.00	15.12	20.00
100 cu. yds. rock excav., in trench	3.00	5.00	5.00	5.00	2.00

★**Reading, Pa.**—Following are bids opened Apr. 20 for constructing storm sewers on W. Elm and Elm Sts. (Edmund B. Ulrich, City Engr.): (a) Heyman & Goodman Co., $104,082; (b) Union Paving Co., $90,986; (c) Jas. Ferry & Sons, Inc., $76,791; (d) Cantrell Constr. Co., Philadelphia, $64,631 (awarded contract); (e) Fehr & O'Rourke, Reading, $75,206.

	(a)	(b)	(c)	*(d)	(e)
200 lin. ft. 5-ft. circular concrete sewer in open cut	$20.00	$39.00	$32.75	$20.80	$22.20
2,300 lin. ft. 5-ft. circular concrete sewer, tunnel lining	24.00	22.10	22.35	17.28	22.20
82 lin. ft. 4 x 7-ft. 10-in. reinforced concrete sewer	60.00	82.00	45.00	61.00	41.25
50 lin. ft. silt basin	43.00	48.00	40.00	90.00	27.00
20 lin. ft. 18-in. vitr. pipe sewer	6.00	2.45	3.50	3.00	2.25
300 lin. ft. 15-in. vitr. pipe sewer	4.00	2.45	3.00	2.50	1.75
100 lin. ft. 10-in. vitr. pipe sewer	3.60	1.60	2.00	1.25	1.25
24.5 lin. ft. reinforced 2 ft. 8 in. x 4 ft. to 5 ft. junction chamber	20.00	46.50	30.00	9.00	19.50
24.5 lin. ft. reinforced 5 ft. to 6 ft. 8 in. x 7 ft. 6 in. junction chamber	30.00	47.00	50.00	45.00	37.50
130 lin. ft. reinforced concrete manhole	160.00	68.00	6.00	10.80	27.30
20 lin. ft. concrete manhole (storm sewer)	30.00	10.00	5.00	5.00	6.00
20 lin. ft. concrete manhole (house sewer)	30.00	10.00	5.00	5.00	6.00
1 Plate "C" basin, 8 ft. radius, complete with connection	120.00	100.00	100.00	120.00	125.00
4 Plate "C" basins, 6 ft. radius, complete with connection	120.00	80.00	90.00	115.00	125.00
7 Plate "T" basins, 6 ft. long, complete with connection	100.00	50.00	85.00	110.00	125.00
30 M ft. lumber	30.00	45.00	25.00	1.00	20.00
100 cu. yds. excav., unclassified—including backfill	3.00	3.50	2.50	1.00	1.50
Concrete in place, per cu. yd	25.00	16.00	....	8.00	6.50

★**New Orleans, La.**—Contracts reported awarded by the Sewer and Water Bd. to Hampton Reynolds, New Orleans, for extensions to pumping station No. 2, at $43,-850, and to Chapman Valve Mfg. Co., Springfield, Mass., for sluice gates for station, at about $18,000.

Cincinnati, O.—Bids desired until May 21 by Director Pub. Service (Parke S. Johnson, Secy.) to furnish material and construct main and lateral sewers in portions of Erie and Herschel Aves.

Cleveland, O.—Bids desired until May 20 by A. R. Callow, Comr. Purchases and Supplies, for constructing Dugway Brook branch sewer between Dugway Brook and Lakeview Rd., N. E.

Mansfield, O.—Citizens will probably soon vote on issuing $125,000 bonds for enlargement of purification plant by construction of Imhoff tanks and sprinklers. Engineer, F. A. Barbour, Tremont Bldg., Boston, Mass.

★**Marion, O.**—Contracts for sewers reported awarded as follows: North Main St. sewer to P. Drake & Sons, $11,555; Park, Patten and the alley sewer to Thos. Hurley, $13,395; Uncapker Ave. sewer to Kohbarger & Hoyles, $15,021; Park St. sewer to Hofstetter & Dawson, $6,120.

Christopher, Ill.—John W. Dye, Mayor, writes that bids will be received about July 1, for construction of sewer system from plans of L. T. Putman, of Benton.

Columbia, Ill.—See "Water Works."

★**Pana, Ill.**—Contract awarded by Bd. of Local Improv. for septic sewage tank system to Sell & Kollar, of Pana, at $26,692.

Wenona, Ill.—F. H. Ong, City Clerk, writes bids will be received about June 15 for constructing about 5 miles of 8 to 24-in. pipe sewers, to cost about $22,000, with septic tank to cost about $2,000. Engineers, Melluish & Broyhill, of Bloomington.

Green Bay, Wis.—Bids reported desired until May 18 by L. Findeisen, Chmn. Sewer Com., for sewers on Van Buren and Baird Sts. and Webster Ave.

Kenosha, Wis.—Bids desired May 21 by Street Assessment Com. for constructing a combined sewer system, advertised in Engineering Record. B. C. Brennan, City Engr.

Madison, Wis.—Local press reports state that work on improvement of the sewer system as recommended by Alvord & Burdick, of Chicago, Ill., will be started soon; cost about $91,000.

★**Jewell Junction, Ia.**—Contracts awarded May 3 for constructing sewers as follows: Sects. 1 and 3, to Dearborn Constr. Co., Waterloo, at $1,467 and $9,014, and Sect. 2, to Adams Martin Co., Centreville, $3,597. M. J. Severson, City Clk.

Mt. Ayr, Ia.—Bids reported desired until May 17 by City Council for constructing a sewer system; probable cost, $30,000. E. T. Archer & Co., Engrs., New England Bldg., Kansas City, Mo.

Tripoli, Ia.—All bids opened May 3 by H. W. Brockhaus, City Clk., for furnishing material and constructing sanitary sewer, sewer outlet and sewage disposal plant have been rejected, being considered too high. New bids will be received May 25. Probable cost $35,000. Engineers, M. Tschirgi & Sons, Cedar Rapids.

★**Fairmont, Minn.**—Contract awarded May 6 for constructing about 24 blocks sewers to J. W. Turner Improv. Co., of Des Moines, Ia., $13,051. H. B. Tuttle, City Clk.

★**New Ulm, Minn.**—Contract awarded May 5 for constructing sanitary and storm water sewers to Dearborn Constr. Co., Waterloo, Ia., at $19,575. F. D. Minium, City Engr.

St. Paul, Minn.—Bids reported desired May 17 by August Hohenstein, Purchasing Agt., for sewers in various streets.

City Council reported to be considering construction of Capitol Ave. sewer system.

Caruthersville, Mo.—See "Water Works."

Bozeman, Mont.—Bids desired May 20 by A. M. Brandenburg, City Clk., for constructing storm sewers and pavements in Special Improv. Dist. No. 85 including approximately 1560 lin. ft. 6 to 10 in. storm sewers, 1540 yds. excav., 10,775 sq. yds. pavt. also for constructing concrete curb and sidewalks in Special Improv. Dist. No. 86, including 13,400 sq. ft. concrete walks, 2670 lin ft. curb, etc.

Wibaux, Mont.—See "Water Works."

Chehalis, Wash.—City Clerk writes a resolution has just been introduced providing for sewers in southern section of city.

Seattle, Wash.—Three lowest bids opened Apr. 30 by Bd. Pub. Wks. for construction of sewers in Leary Ave. as follows: Benjamin, Hawkey & Gartner, Seattle, $18,974; L. R. Ellis, Seattle, $19,-739; Calasurde & Co., Seattle, $19,937.

Portland, Ore.—City Council has decided to construct sewers in Cumberland Road. Cost with vitr. pipe $9,524, or cement sewer pipe $9,524.

Sacramento, Cal.—Local press reports state bids about to be received by City Comn. for constructing fifth unit of trunk line sewer in the annexed district. M. J. Desmond, City Clk.

Ogden, Utah.—Plans and specifications approved by City Comrs. for 4000 lin. ft. 8-in. pipe sewers. Washington Jenkins, City Engr.

★**Lewiston, Idaho.**—Contract awarded Apr. 26 for constructing sewer in Dist. No. 6, to Security Bridge Co., Lewiston, at $7,853. C. F. Leland City Clk.

St. Lamberts, Que.—E. Denkwater, Town Engr., writes that an election will be held May 21 to vote on constructing trunk sewer and disposal plant, to cost $200,000.

Toronto, Ont.—Bids desired until May 17 by Frank Barber, Township Engr., 57 Adelaide St., Toronto, for constructing sewer in Homewood Ave., Township of York.

★**Esquimalt, B. C.**—Contract awarded by Municipal Council for installing sewer system in Sect. A, which includes Craigflower Dist., to Thos. E. Young, at $25,082.

BRIDGES.

Items Arranged Geographically

Enosburg Falls, Vt.—Bids desired by Town Selectmen, about June 1, for construction of reinforced concrete bridge over Missisquoi River in Enosburg Falls. Estimated cost $13,500. M. L. Sanders, Consulting Engr., White River Junction.

★**Northampton, Mass.**—Bids were opened May 4 by County Comrs., Northampton (Frank A. Brooks, Chmn.), for reconstructing 2 piers and repairing superstructure of bridge across Connecticut River, between Northampton and Hadley, from plans of J. R. Worcester, 79 Milk St., Boston, and contracts have been awarded as follows: Substructure to Holbrook, Cabot & Rollins, Cor., Boston, at $32,750; superstructure to Providence Steel & Iron Co., Providence, R. I., $19,600.

Canton, N. Y.—Bids desired until May 28 at office of Town Bd., Canton (H. M. Barber, Clk.) for bridge work to consist of removing superstructure of present bridge over Grasse River at Morley and furnishing and erecting superstructure of a new steel truss bridge of 2 spans of 79 ft. 9 in. each, with a roadway of 18 ft. width and one sidewalk 5 ft. in width, with a concrete floor; also separate bids for removing superstructure of present bridge over Granis Brook on Canton-Pierrepont Rd. and furnishing and erecting superstructure of new steel truss bridge of one span of 46 ft., roadway 18 ft. in width, complete and ready for concrete floor.

★Contract awarded May 5 for constructing a concrete-steel arch bridge over Grasse River, Canton, to Flood & Van Wirt Co., of Hudson Falls, at $25,-500. Concrete Steel Eng. Co., Engrs., Park Row Bldg., New York.

Jay, N. Y.—Bids reported desired May 22 by Fred. A. Torrance, Town Superv., for constructing 124½ ft. iron bridge over Au Sable River at Upper Jay.

★**Lancaster, N. Y.**—Contract awarded May 3 for constructing reinforced concrete arch bridge over Cayuga Creek, at Bway. to Howard L. Meyer, Bowmansville, at $12,520. F. H. Maule, Town Clk.

Syracuse, N. Y.—Local press reports state bids desired until May 17 to construct a bridge over Onondaga Creek at Taylor St. W. Thos. Wooley, City Engr.

Sea Isle City, N. J.—L. M. Rice, County Engr., Wildwood, writes following are 4 lowest bidders on Sea Isle City Strauss lift bridge: Bridgeton Constr. Co., $27,-480; Luffer & Remick, $27,750; Renow Constr. Co., $28,500; Croton Bridge Co., $28,820.

Indiana, Pa.—Bids desired by County Comrs., May 25, for construction of 3 reinforced concrete bridges. Thos. Pealer, Co. Engr.

★**Media, Pa.**—Contract awarded May 3 for constructing bridge on line Baltimore Pike to Chas. T. Eastburn, of Yardley, at $14,485. Orim L. Davis, Co. Controller.

Phoenixville, Pa.—The bridge over Schulykill River between Montgomery and Chester Counties is reported destroyed.

Sunbury, Pa.—Viewers for site for bridge to be constructed over Shamokin Creek selected 10th St. for structure, to cost about $14,000.

West Chester, Pa.—Chester County is about to erect several bridges and would like some information on concrete bridge work. Address Isaac Y. Ash, County Controller.

★**Cumberland, Md.**—Contract has been awarded on bids opened May 3 to Vang Constr. Co., Cumberland, for rebuilding bridge across Wells Creek, at Market St., to be of reinforced concrete to have 2 spans 65 ft. each 34 ft. wide, at lump sum bid of $12,200. B. W. Davis, Consulting Engr., New York; Jas. P. Gaffney, City Engr.

Bedford City, Va.—Bids desired May 21 by County Clerk, for constructing a steel bridge, 100 ft. long, over Beaver Dam Creek; a steel bridge, 91 ft. long over Bore Auger Creek; and a 119 ft. bridge over Goose Creek, all in Bedford County. G. P. Coleman, State Highway Comr. Richmond.

Fairmount, W. Va.—The City Council is considering constructing 2 bridges, one with span 388 ft. long over Coal Run, and one 1450 ft. long over Monongahela River; cost about $400,000.

★**Hamlin, W. Va.**—Contracts awarded May 3 by County Court for steel highway bridge at Town of Ranger, over Guyandotte River, consisting of an 82-ft. span, a 192-ft. span, and a 42-ft. span, with 16 ft. roadway: Superstructure to Vincennes Bridge Co., Vincennes, Ind., at $6,344; substructure to Walter Ullum, Huntington, W. Va. Olive & Maupin, Engrs., Huntington.

★**Durham, N. C.**—Contract awarded Apr. 6 for constructing 5 steel bridges to Camden Iron Co., Roanoke, Va., for steel at $10,904; concrete, $5.80 and $5.90 per cu. yd. P. C. Crompton, Co. Aud.

Lake Charles, La.—Bids desired until June 1 by Highway Dept. Lake Charles, for constructing a reinforced concrete arch bridge with a double-leaf Strauss trunnion bascule span, over Calcasieu River, near Lake Charles, advertised in Engineering Record. F. H. Frankland, Bridge Engr.

Louisiana.—Bids desired by Bd. of State Highway Comrs. (C. C. Sandoz, Secy.), New Orleans Court Bldg., until June 7 for constructing steel swing bridge over Bayou Lacombe, near Lacombe, St. Tammany Parish; to have 2 spans, each 75 ft., width 16 ft.; cost $7,000.

Chattanooga, Tenn.—Construction of concrete viaduct over railroad tracks at Harrison Ave., also for bridge over tracks at Riverside Drive is contemplated by county and Western & Atlantic Ry., Cincinnati, New Orleans & Texas Pacific Ry. and Southern Rys. Cos.

★**Louisville, Ky.**—Contract for constructing city's portion of underpass from Brook to Floyd on Eastern Parkway awarded by Bd. Park Comrs. Apr. 27 to Geo. M. Eady, Louisville, at $8,292.

The Louisville & Nashville Ry. Co. (W. H. Courtenay, Ch. Engr., Louisville) will build a bridge on main line at cost of about $12,000.

Kentucky — Henderson County.—Bids desired by County Clerk, at Henderson, until May 25, for 11 bridges and 1 reinforced concrete culvert. Plans on file with S. H. Kimmel, Co. Road Engr., Henderson.

Ashland, O.—Bids desired until May 17 by County Comrs. for $60,000 bridge bonds.

Canton, O.—Bids desired by County Comrs. until May 28 for bridges as follows: W. Tuscarawas St. bridge, steel truss, 62 ft.; 8th St. N. E. bridge, plate girder, 62 ft.; and 16th St. N. E. bridge, steel truss, 62-ft. span.

Cincinnati, O.—Chesapeake and Ohio Ry. Co. of Indiana (Wm. R. Hudson, Gen. Supt., Covington, Ky.) has been directed to construct concrete or iron and concrete bridge over railroad tracks on Werk Rd.

County surveyor estimates cost of constructing a concrete bridge over Millcreek on Springfield Pike, Woodlawn, at $75,075.

Bids desired by June 1 for construction of Park Ave. bridge over Kemper Lane; to be 65 ft. wide, 360 ft. long, to consist of one 180-ft. span, 3 ribbed reinforced concrete arches and approaches; estimated cost $165,000. Approximate quantities: 26,000 cu. yds. grading, excav. 9000 cu. yds., trench excav. 6800 cu. yds., reinforced concrete 9000 yds. bituminous macadam pavt., and 1600 sq. yds. wood block pavt., and other miscellaneous street work. Philip Fosdic, Dir. Pub. Service.

Columbus, O.—About $80,000 bonds for constructing bridges were sold by County Comrs.

Bids desired June 4 by John Scott, Clk. Co. Comrs. Columbus, for Shriver Concrete arch bridge over Hayden Run, Washington Township, Engineer's estimate 184; reinforced concrete arch bridge over Alum Creek, Agler Road, Mifflin Township, Estimate 188; Taylor Concrete bridge on Kidner and Taylor Pike, Plain Township, Estimate 190; west approach to Agler Bridge, over Alum Creek on Agler Road, Mifflin Township, Estimate 189; extending and repairing Souder Arch Bridge at Station 47, plus 21, on Souder Pike, Jefferson Township, estimate 191; also for improving paving and curbing part of Smoky Row Road, Marion Township. Estimate 174.

Dayton, O.—Following are lowest bids opened by County Comrs. for constructing 2 county bridges to cost in all about $60,000: Superstructure Johnson's Station Bridge, Brookville Bridge Co., Brookville, O., at $12,990, and substructure Geiger & Finke, for superstructure Harshmanville Bridge Central States Bridge Co., Indianapolis, Ind., $11,100, and substructure J. J. Foley, Cleves.

★**Tiffin, O.**—Contracts awarded by County Comrs. for bridges as follows: On Apr. 24, to Burk Constr. Co., New Castle, Ind., for Bridge 96 in Bloom Twp., at $3,403, and Bridge 230 in Eden Twp., at $5,586, and on Apr. 29, to Noble Constr. Co. of New Castle, Ind., for two 100-ft. span concrete bridge.

Elkhart Ind.—Bids are being received by County Comrs. for constructing steel or concrete bridge between Goshen and Elkhart.

Detroit, Mich.—The Bd. of Superv. has killed proposal to build a temporary bridge to Belle Isle, and Mayor Marx has recommended that steps be taken at once toward building a permanent bridge to the island.

Michigan.—Bids desired by County Clerk, at Grand Haven, until May 28, for constructing Pony truss bridge over Grand River at Eastmanville, 5 85-ft., 1 70-ft. swing span, 16 ft. wide, plain concrete piers, reinforced abutments. C. V. De Dewant, State Bridge Engr., Lansing.

★**Illinois.**—Contracts awarded by State Highway Comn., Springfield, for constructing bridges in Shelby County, as follows (bids opened May 5): Sect. B, to Townsend B. Smith, Evanston, $3,298; Sect. D, to Tressler & True, Tower Hill, $2,843; lowest bid for Sect. C submitted by Townsend & Smith, at $3,248.

Bids reported desired May 20 by T. C. Fleming, Co. Supt. Highways, Sullivan, for constructing a reinforced concrete bridge to cost about $665,000.

★*Items marked thus give the names of parties awarded contracts.*

Illinois.—Bids desired by County Comrs. until May 18 as follows:

By F. R. Bryant, County Superintendent Princeton, constructing the Comp Bridge, span 50 ft., roadway 16 ft. 5300 lbs. reinforcing steel, etc., cost $2,490. Nearest R. R. Station Tiskilwa. Woods Bridge, span 50 ft. roadway 18 ft. 25,892 lbs. reinforcing steel, cost $2,050, nearest R. R. Station, Sheffield.

By Wm. Burgner, Co. Supt. Highways, Carthage,—Zinn Bridge, span 120 ft., roadway 16 ft., reinforcing steel, 10,280 lbs. etc., cost $5,700. Nearest R. R. Station Stillwell.

★**Waukon, Ia.**—Contract awarded by County Comrs., May 4, to Western Constr. Co., La Crosse, Wis., for constructing steel bridges.

★**Austin, Minn.**—Contract awarded Apr. 28 for constructing concrete bridges as follows: To H. F. Garbish, Austin, for 7 bridges, $9,334; Iowa Bridge Co., Des Moines, Ia., 5 bridges, $7,099 and Wm. O'Shea & Sons, 2 bridges, $2,617. C. J. Simmons, Co. Aud.

Moorhead, Minn.—Contracts for constructing bridges awarded Apr. 27 as follows: Bridge 1633, to Ilinois Steel Bridge Co., St. Paul, $8,935, and Bridge 1657, to Jardine & Anderson, Fargo, N. D., at $2,599. A. V. Houghlum, Co. Aud.

Palisade, Minn.—County Comrs. at Aitkin considering constructing bridge at Palisade, cost about $11,000.

Butte, Neb.—An additional steel span 175 ft. long is to be erected at bridge over Niobrara River near Birwood by Boyd and Holt Counties with state aid; cost about $10,000.

Fargo, N. D.—Bids reported desired May 19 by County Auditor for constructing an 80 ft. steel span bridge with reinforced concrete abutments and wings.

El Paso, Tex.—Construction of concrete bridge between El Paso and Juarez is contemplated to be built jointly by the two cities; cost about $50,000.

Tulsa, Okla.—County Comrs. reported to have decided to construct a concrete bridge over Arkansas River; cost $200,000. Dick Hughes, Co. Surveyor.

Montesano, Wash.—Bids reported desired until May 24 by County Comrs., Montesano, to construct 3 small steel bridges over Wiskah River between Montesano and Aberdeen. Probable cost, $19,000.

Olympia, Wash.—Contract is about to be let for constructing La Salle St. bridge near Olympia; cost $20,000. Wm. R. Roy, State Highway Comr.

Riverside, Wash.—Bids will probably be received by Town Clerk for substructure to cost $3,000, and in October for superstructure to cost $9,000, of steel bridge with concrete piers to be constructed over Okanogan River, near Riveside; cost about $10,000. Engineers, Bowerman & McCloy, of Seattle.

Spokane, Wash.—Plans have been ordered by the Comr. of Pub. Wks. for a 100-ft. reinforced concrete approach to south end of Monroe Bridge; estimated cost $27,500.

Tumwater, Wash.—Bids reported desired until May 31 by County Comrs., Olympia, for constructing a concrete bridge across Des-Chutes River at Tumwater on Pacific Highway; probable cost $10,000.

★**Portland, Ore.**—Contract awarded by Columbia Interstate Bridge Com. (Wm. N. Marshall, Secy.), Apr. 26, for constructing embankment and incidental structures in connection with Columbia River Interstate Bridge and approaches, to Standard American Dredging Co., of Oakland, Cal., at $112,988.

California.—Bids desired May 24 by California Highway Comn. Sacramento, for constructing a plate girder bascule 80 ft. clear span bridge in Yolo County (III Yol-6-B), easterly side of Yolo Bypass, about 70 tons structural steel, 24,000 lbs. heavy steel castings, 5100 lbs. light steel castings, 2700 lbs. shafting and couplings 1300 lin. ft. reinforced concrete piles 54,900 lbs. reinforcing steel, 15 M ft. timbers in fenders, etc. Total length 141 ft.

Richmond, Cal.—County Superv. have adopted plans for constructing 514 ft. concrete bridge over Martinez River at Richmond.

Watsonville, Cal.—Bids are about to be asked for proposed reinforced concrete cantilever bridge 460 ft. long, spanning Pajaro River, to be built jointly by city and county; approximate cost, $35,000. Engineers, Leonard & Day, of San Francisco.

Sacramento, Cal.—The Assembly voted $25,000 toward cost of constructing bridge over Colorado River at Needles, Ariz.; total cost, $75,000.

★**Idaho.**—Contract awarded by State Highway Dept. at Boise for constructing 7 small bridges in Bannock County to Midland Bridge Co., Salt Lake City, Utah, $3,546. Edw. S. Smith, State Highway Engr.

★**Sandpoint, Idaho.**—Contract for constructing steel bridge over Meadow Creek awarded by County Comrs. to Chris. Peterson, Sandpoint, at $17,000.

Silver Lake, Idaho.—Comrs. Ada County and Owyhee County and city of Grandview contemplate constructing a bridge at Grand View, each appropriating $10,000 of cost.

Hamilton, Ont.—Nothing definite has yet been done toward constructing bridge across Valley Inn Inlet; the preliminary estimated cost is $300,000. A. F. Macallum, City Engr.

PAVING AND ROADS.

Items Arranged Geographically

Boston, Mass.—Bids desired May 17 by Patk. O'Hearn, Acting Comr. Pub. Wks., St. also on Powellton Road, both in Dorfor asphalt or bitulithic pavt. on Raven chester.

Massachusetts. — Governor Walsh, of Massachusetts, has signed bill authorizing construction by the Highway Comn. at Boston of the new State highways to cost $2,500,000, for benefit of western counties of Berkshire, Franklin, Hampden, Hampshire and Worcester, within the years 1915 to 1918, inclusive. The highways to be constructed are divided into 17 sections, as follows:

No. 1, from Great Barrington southward through Sheffield to Connecticut State line.

No. 2 from Pittsfield to Northampton through Hinsdale, Windsor, Cummington and Goshen.

No. 3 from New Boston in town of Sandisfield northerly up Farmington Valley through Otis and West Becket, to connect with main highway running east and west, known as Jacob's Ladder road.

No. 4 from Bonny Rigg Four Corners in Becket, through Washington to present State highway in Hinsdale.

No. 5 from main highway in Huntington northerly through Worthington to Cummington, to connect with highway between Dalton and Northampton, now under construction.

No. 6, from Hinsdale easterly through Peru to Worthington, to connect with last described road from Huntington to Cummington.

No. 7, from Plainfield to Cummington to connect with highway between Pittsfield and Northampton, now under construction.

No. 8, from Belchertown through Enfield and Ware to Palmer via State hatchery, to connect with main highway from Boston to Springfield.

No. 9, from Granville Corners through Southwick to Feeding Hills in Agawam.

No. 10, from South Deerfield at a point near State highway leading from Northampton to Greenfield, through Conway to Ashfield, thence through Spruce Corners to Lithia in Goshen, to connect with Pittsfield-Northampton highway, now being built.

No. 11, from Northfield through Gill to Turners Falls to connect with Boston-North Adams main highway.

No. 12, from Athol to Worcester through Petersham, Barre, Oakham and Rutland, connecting main highway running westerly from Boston through Athol to North Adams with Boston-Worcester-Springfield highway.

No. 13, from Worcester through Grafton and Upton to Milford, to connect with main highway leading to Cape Cod.

No. 14, from Warwick to Orange to connect with the Boston-North Adams highway.

No. 15, from Blandford to Woronoco in Russell to connect with Springfield-Pittsfield main highway.

No. 16, from State highway in Wales to the Connecticut line.

No. 17, from West Chesterfield to Chesterfield to Williamsburg over Mains to a point at or near the town of Florence.

To meet the cost of the above highways a bond issue with a maximum term of 15 years will be floated, bearing interest at not over 4 per cent.

Massachusetts.—Following are lowest bids opened May 4 by Massachusetts Highway Comn., Boston:

★Abington, Whitman and Brockton, 10,900 ft. tar and asphalt, E. J. Rourke, Abington, $13,760 (awarded contract); Z. L. Canedy, $14,860.

Deerfield, 6500 ft. oil: O. W. Rackle, Providence, R. I., $5,945 (low bidder); D. O'Connell & Sons, $6,895.50; F. E. Ellis, $7,917.

★Methuen and Lawrence, 10,400 ft. asphalt: Merrimac Contr. Co., Lawrence, $22,701 (awarded contract): Jos. Wagenbach & Co., $23,299; O. W. Rackle, $23,559.

★Shrewsbury, 10,100 ft.: B. E. Savage, Worcester, $9,350 (awarded contract); Chas. E. Horne, Milbury, $10,181.50; Rowe Contr. Co., $11,382.

★Swampscott, 15,000 ft.: M. McDonough, $21,102 (awarded contract); D. J. Sheehan, $23,110.

Bids desired by State Highway Comn., Boston (Wm. D. Sohier, Chmn.), to construct roads in towns as follows:

Until May 18:

Williamstown, section of highway about 6500 ft. in length and 2 concrete bridges.

Wrentham, section of highway about 6400 ft. in length.

★**Pittsfield, Mass.**—Contract for paving New West St. awarded by Bd. Public Works to Weed & Walsh, at $13,033.

Providence, R. I.—City Council voted to pave with granite Eddy and Benefit Sts.; cost $97,000.

Woonsocket, R. I.—City Council voted to pave Clinton St. with granite block, cost $46,000.

New Haven, Conn.—Bids desired May 17 by F. L. Ford, City Engr., for paving about 7000 yds. on Crown St. with wood blocks; also until May 18, separate bids for sheet asphalt over waterbound macadam on portions of Court, Prout, Library, Water, Hill, Whiting and Portsea Sts. and Washington Ave. in all about 20,748 yds.

Windsor Locks, Conn.—Contract is about to be let by city for constructing sidewalks; cost about $30,000.

Albany, N. Y.—Bids desired until June 1 by Edwin Duffey, Comr. State Comn. Highways, Albany, for repairs to highways in various counties, advertised in Engineering Record.

Albany, N. Y.—Following are 4 lowest bids opened May 5 by the State Highway Comr., 55 Lancaster St., for construction of highways by State Aid:

Road 1259, Belfast-Tránsit Bridge, Allegany County, 4 miles: Greece Constr. Co., Rochester, $34,946; W. J. Fox, Ormal, $36,624; Busch & Percival, Buffalo, $36,937; Michael Murphy, Rochester, $36,995.

Road 1260, Belvidere-Transit Bridge, Angelica, Allegany County, 8.64 miles: Bison City Eng. & Contr. Co., Inc., Buffalo, $95,636; Busch & Percival, Buffalo, $95,710; John Johnson Constr. Co., Buffalo, $96,323; McNerney Constr. Co., Canton, Pa., $97,674.

Road 1254, Rutledge-Leon, Part 1, Cattaraugus County, 4.43 miles: H. J. Crathwol, Hammondsport, $52,694; S. T. Benson & Co., Jamestown, $55,352; Gleason & Davitt, Albany, $55,422; John W. Landel, Tonawanda, $57,083.

Road 1026, Jamestown-Stockton, Chautauqua County, 3.99 miles: Thos. Mahoney, Jamestown, $96,461; D. D. Dugan & Son, Olean, $97,034; Brady & Oltarsch, New York, $99,242; Gleason & Davitt, Albany, $101,559.

Road 1062, Fredonia Village, Chautauqua County, 1.59 miles: J. B. Hurley Co., Inc., Fredonia, $47,671; Lake Shore Constr. & Supply Co., Dunkirk, $48,278; Dunkirk Constr. Co., Dunkirk, $48,802; O. M. Severson & Co., Erie, Pa., $50,508.

Road 5549, Wappingers Falls Village, Main St., Dutchess County, .88 miles: Nordone & Petrillo, Jas. Garafano & Sons, Inc., Mt. Vernon, $51,594; Samuel Beskin, Beacon, $54,111; Gifford Constr. Co., Jamaica, $54,544; John L. Hayes Constr. Co., Yonkers, $54,854.

Road 5552, Malone-Duane, Part 1, Franklin County, 8.81 miles: De Graafe & Hogeboom, Inc., Kingston, $86,661; Ross-Hallenbeck Constr. Co., Copenhagen, $88,183; A. J. Rockwood, Rochester, $88,258; W. T. Thayer & Co., Chateaugay, $89,880.

Road 1258, Tupper Lake-Long Lake, Part 1, Hamilton County, 5.01 miles: Highway Eng. Co., Inc., Albany, $59,991; Fulton Eng. Co., Inc., Albany, $62,876; Langan Constr. Cor., Albany, $64,375; Connors & Nixdorf, Oneida, $64,998.

Road 1257, Little Falls City, East Monroe St., Herkimer County: Jas. Garafano & Sons, Inc., Mt. Vernon, $20,087; Flood & Van Wirt Co., Hudson Falls, $20,794; Elmer J. Latus, Albany, $21,272; R. D. Cooper, Little Falls, $23,890.

Road 471, Richfield Springs-Warren, Road 830, Springfield, Herkimer County, 3.60 miles: Flood & Van Wirt Co., Hudson Falls, $31,531; Alonzo Schaupp, Guilderland, $31,997; E. J. Anderson, Albany, $34,583; Nison City Eng. & Contr. Co., Inc., Buffalo, $35,166.

Road 831, Little Falls-Montgomery County, 5.63 miles: M. Bennett & Sons, Indiana, Pa., $49,829; B. F. S. Company, Herkimer, $54,913; E. J. Anderson, Albany, $55,355. C. S. Mathusa, Albany, $58,029.

Road 5548, Philadelphia-Antwerp, Jefferson County, 7.27 miles: Pathfinder Constr. Co., Inc., Fulton, $139,993; Martin Murray & Co., Troy, $140,994; Jas. Rossney, Buffalo, $141,931; Wm. H. Ring Contr. Co., Ogdensburg, $146 828.

Road 1247, Moscow-Geneseo, Livingston County, 3.51 miles: P. H. Murray, Rochester, $47,561; Jas. Garafano & Sons, Mt. Vernon, $49,799; I. M. Ludington Sons, Inc., Rochester, $50,820; Freeman & Cunningham, Watervliet, $51,968.

Road 1248, Perry Center-Moscow, Part 2, Livingston County, 3.196 miles: Ribstine-Holter Co., Inc., Rochester, $43,608; I. M. Ludington Sons, Inc., Rochester, $44,801; Busch & Percival, Buffalo, $45,468.

Road 1249, West Rush-East Avon, Livingston County, 2.18 miles: Harold J. Shields, Albany, $17,539; Thos. Hucknall & Co., Albion, $17,725; John M. Fitzgerald, Rush, $18,318; P. H. Murray, Rochester, $18,604.

Road 1261, Massena-Helena, Part 1, St. Lawrence County, 5.66 miles: Toss-Hallenbeck Constr. Co., Copenhagen, $68 690; Dana W. Robbins, Inc., New York, $71,564; Thos. O'Brien, Watertown, $72,970; De Graafe & Hogeboom, Inc., Kingston, $73,128.

Road 1263, Gouverneur-Edwards, Part 1, St. Lawrence County, 10.85 miles: A. J. Rockwood, Rochester, $116,760; Eggleston & Garthwaite, Yonkers, $117,336; Del Eng. Co., Utica, $119,444; Thos. Grady, Rochester, $119 673.

Road 1264, Brasie Corners-Edwardsville, St. Lawrence County, 9.09 miles: P. J. Kennedy, Utica, $85,400; A. J. Rockwood, Rochester, $85,792; I. B. Contr. Cor., New York, $88,621; Fulton Eng. Co., Albany, $88,806.

Road 5545, Schenectady-Duanesburg, Part 2, Schenectady County, 5.62 miles: The Curren Cor., Middletown, Conn., $44,222; J. J. Malloy, Schenectady, N. Y., $49,919; F. A. Biggi, Brooklyn, $50,955; Wm. Green, Schenectady, $51,140.

Road 1234, Richmondville-Summit, Schoharie County, 4.99 miles: C. S. Mathusa, Albany, $46,267; John A. Jova, Inc., Newburgh, $46,315; Belmar Contr. Co., Inc., Troy, $46,562; Lane Constr. Cor., Meriden, Conn., $48,599.

Brooklyn, N. Y.—Bids desired until May 19 by L. H. Pounds, Boro. Pres., for paving portions of 13th Ave., Montgomery, Stone, Union and several other streets, in all 53,270 sq. yds. asphalt pavement, etc.; also grading, curbing and laying sidewalks on portions of Union Pl., Louisiana Ave., Baltic, E. 10th and several other streets, in all 42,440 sq. ft. cement sidewalks, etc.

★**Buffalo, N. Y.**—Contract for paving Casimer Ave. awarded by Comr. Pub. Wks. to Austin W. Saunders, at $14,475.

★Contract for paving with asphalt Wyandotte Ave. awarded by City Council to Henry P. Burgard Co., 1968 Fillmore Ave., at $12,030.

Bids desired until May 21 by Dept. Pub. Wks. (F. G. Ward, Comr) for repaving portions of West Ave., Caldwell Alley, Eagle, Pratt and Girder Sts.

Cananaigua, N .Y.—County Bd. Supervs. voted to spend $52,132 for improving Canandaigua, Orleans, Clifton Springs, Victor and Phelps Village Roads.

★**Cedarhurst, L. I., N. Y.**—Contract for 19,000 sq. yds. pavements in Cedarhurst awarded to Standard Bitulithic Co., 50 Church St., New York City, at about $36,000.

East Aurora, N. Y.—Contract is about to be let for paving E. Main St., cost about $12,000.

Franklinville, N. Y.—Citizens voted to pave one mile Main St.

★**Irondequoit, N. Y.**—Contract awarded Apr. 19 by Good Roads Com., J. Y. Mcclintock, County Supt. of Highways, Court House, Rochester, for improving East Side Boule., with California asphalt, in town of Irondequoit, to Whitmore, Rauber & Vicinus, of Rochester.

Long Island City, L. I., N. Y.—Lowest bids opened May 5 by Maurice E. Connolly, Pres. Boro. Queens, for regulating, grading, curbing, laying sidewalks and crosswalks in Van Dam St., 1st Ward, submitted by Clancy & Nuhn Contr. Co., 31 Hunters Point Ave., Long Island City, as follows: 1000 cu. yds. earth excav., 1 ct.; 46,000 cu. yds. embankment (in excess of excav.), 24½ cts.; 7200 lin. ft. new curb, 75 cts.; 50 lin. ft. old curb, reset, 1 ct.; 34,200 sq. ft. new flag sidewalk, 22 cts.; 100 sq. ft. cement sidewalk, 1 yr. maintenance, 14 cts.; 200 sq. ft. new crosswalks, 60 cts.; 10 cu. yds. concrete, $3; 300 sq. yds. belgian block pavt., relaid, 1 ct.; 50 sq. yds. stone gutters, 50 cts.; 50 lin. ft. 12-in. vitr. pipe, 75 cts. Next 3 lowest bids: Queens Plaza Contr. Co., Long Island City, $28,649; Degnon Contr. Co., 30 E. 42d St., New York, $29,073; Dennis McCarthy, 88 Audubon St., New York, $30,586.

New York, N. Y.—New paving in Manhattan to be commenced during the month of May includes sheet asphalt on W. 24th St., w. s. 6th Ave. to e. s. 7th Ave., and W. 24th St., w. s. 8th Ave. to e. s. 10th Ave.; also E. 54th St., w. s. 3d Ave. to e. s. Lexington Ave.

Lowest bid opened May 6 by Park Bd. for furnishing materials and surfacing with asphaltic concrete City Island Road from the Eastern Blvd. to City Island Bridge in Pelham Bay Park was submitted by Asphalt Constr. Co., 208 Bway., as follows: 2300 cu. yds. excav., 85 cts.; 2100 cu. yds. Portland cement concrete, $4; 16,200 sq. yds. asphaltic concrete surfacing, 79 cts.; total, $23,153. Other bids: Municipal Asphalt Co., Zerega Ave. & Westchester Creek, $23,888; Uvalde Asphalt Paving Co., 1 Bway., New York, $24,244; Sicilian Asphalt Paving Co., 41 Park Row, New York, $27,375; Barber Asphalt Paving Co., 233 Bway., New York, $27,438.

Bids were opened May 16 by Pres. Bronx Boro. for paving as follows:

Regulating, grading and regrading paving with granite blocks on sand foundation Exterior St., E. 151st St. to Jerome Ave., 6050 sq. yds. granite block pavement on sand foundation, laid with sand joints, and keep in repair for 1 year from date of acceptance, $2.20; 300 lin. ft. new curb, 85 cts.; 1300 lin. ft. old curb, 30 cts.; 60 sq. yds. new bridge stone, 60 cts.; 800 sq. ft. old bridge stone, 15 cts.; 800 cu. yds. filling, 1 cf.; 800 sq. yds. new bluestone flag, 25 cts.; 2550 sq. yds. old flag, 5 cts.; 1000 lin. ft. guard rail, 15 cts. Lowest bidder: J. Leopold & Co., total $14,596. Next 3 lowest bids: Asphalt Constr. Co., $15,392; Harris Rose Constr. Co., $16,120; Burnside Constr. Co., $16,248.

Paving with bituminous concrete on cement foundation, E. 174th St. Lowest bidder: Asphalt Constr. Co., $4,325.

Repaving with concrete and sheet asphalt on a cinder concrete foundation, sidewald and roadway of bridge over the tracks of the N. Y. C. & H. R. R.R. at E. 153d St., between Sheridan Ave and

★*Items marked thus give the names of parties awarded contracts.*

Park Ave. Lowest bidder: Barber Asphalt Paving Co., $3,308.

Paving with asphalt block on concrete foundation, E. 167th St. Lowest bidder: Barber Asphalt Paving Co., $3,330.

Regulating, grading and setting curb, etc., in Overing St. Lowest bidder: Di Menna & De Balso, $5,070.

Rochester, N. Y.—Council has adopted first ordinances as follows: Grover St. asphalt pavt., $6,300; Electric Ave. bitulithic pavt., $15,000; Goodman St. asphalt pavt., $63,000; Villa St. asphalt pavt., $12,000; North St. brick pavt., $41,000; Woodlawn St. bitulithic pavt., $7,700.

Rome, N. Y.—City Engineer has been directed to prepare plans and specifications for paving Lawrence St.; estimates cost $25,431.

Atlantic City, N. J.—County Engineer estimates cost of constructing concrete road 23 miles long from Camden County line to shore road at Absecon at $345,000, and for paving with concrete about 2 mile at 30 ft. wide on Meadow Boule. from Pleasantville to Absecon at $80,000.

★**Cape May, N. J.**—Contract for paving with asphalt Washington St. awarded by City Council to Newton Paving Co., Trenton, at $20,000.

Paterson, N. J.—Following are 3 lowest bids opened by Bd. Chosen Freeholders for road improvements as follows:

Midvale-Greenwood Lake Rd. with macadam, Fusco Constr. Co., Montclair, $25,491; Cotter & Bergen, Butler, $25,819, and Francisco Bros., Paterson, $26,063.

Paterson and Hamburgh turnpike, Sect. 1 with bituminous concrete, Arthur S. Merselis 90¾ per cent., county engrs. estimate Francisco Bros 92½ per cent. and A. W. Gill, Hackensack, 93 1/5 per cent.

Paterson and Hamburgh turnpike Sect. 2 with concrete, John Foley, $26,876; Harrop & Sowerbutt $27,149, and Union Constr. Co., $27,902.

Ridgefield Park, N. J.—Bids desired until May 25 by M. D. Starker, Village Clk., for improving a portion of Summit St. advertised in Engineering Record.

★**Toms River, N. J.**—Contract or constructing 5000 ft. road on W. Water St. awarded by Ocean County Freeholders to Cranmer & Parker, West Creek, at $13,000.

★**Harrisburg Pa.**—Contract for municipal asphalt repair plant awarded by City Comn. to F. D. Cummer & Co., Pittsburg, at $9,768.

Monaca, Pa.—City Council voted to spend $50,000 for street pavements.

Philadelphia, Pa.—Specifications are being prepared by Highway Bureau for paving S. Broad St. Plaza between Oregon Ave. and Bigler St.

★**Reading, Pa.**—Contracts were awarded May 4 as follows: To Hassam Paving Co., Worcester, Mass., for wood block paving, $3.06 per sq. yd.; hot mix, $1.43 per sq. yd.; asphalt repair, 93 cts.; and to Fehr & O'Rourke, Reading, for vitr. block, $2.33 per yd.; Hillside block, $2.37 per yd.; granite block, 97 cts. per yd., and concrete paving, $1.28. E. B. Ulrich, City Engr.

Baltimore, Md.—Lowest bid opened by City Paving Comn. (R. Keith Compton, Chmn.), or Contract 114 to include paving of sections of Haubert, Hull, Beason, Covington and Cross Sts., submitted by P. Flanigan & Sons, Baltimore, at a total of $42,183. They bid for sheet asphalt 1½ in. top, 1½ in. binder, 6 in. concrete base, $1.40 sq. yd.; vitr. block gutters and crossings, $2 per sq. yd.; armored concrete curb and circles, 50 cts. per lin. ft., old stone curb and circles redressed and reset 34 cts. per lin. ft. and grading 28 cts. per cu. yd.

Bids desired by City Paving Com., May 19, for paving Contracts 117, Pratt St. from Howard to Light St., to include the following: Granite block paving, asphalt fill, 6 in. concrete base, 6,400 sq. yds.; armored concrete curb and circles, 500 lin. ft.; old stone curb redressed and reset, 2,000 lin. ft.; grading, 950 cu. yds.

Moundsville, W. Va.—Bids reported desired until May 28 by County Court to grade and macadamize roads in Union Dist. and Boggs Run Hill Rd. T. J. Bartrug, Engr., Alexander Bldg.

Parkersburg, W. Va.—City Council voted to pave with brick Ann, 3d, George Sts. and Murdock Ave. at cost of about $90,000.

★**Lancaster, S. C.**—Contract for 11,500 sq. yds. sheet asphalt pavements on Main St. awarded by City Council to Noll Constr. Co., Chattanooga, Tenn., at about $21,500.

Key West, Fla.—Following are bids opened May 4 by Bd. Pub. Wks. for furnishing an 8-ton gas engine road roller of most approved type, delivered f.o.b. Key West: Austin Western Road Machinery Co., Chicago, Ill., $2,590, and Kelley Springfield Road Roller Co., Springfield, O., $2,100. Contract not yet awarded.) Emory L. Pierce, City Engr.

Birmingham, Ala.—The Bd. of Revenue tentatively selected Possum Valley Rd. as route for highway from Birmingham to Warrior River. About 10 miles of road will be improved, cost about $10,000.

★**Abbeville, La.**—Contract awarded Apr. 24 by Highway Dept., Bd. State Engrs., New Orleans Court Bldg., New Orleans, for constructing with earth about 9 miles of the Abbeville Kaplan Highway, Vermillion Parish, to H. H. Shackford, of Bayou Sara, at $14,664. W. E. Atkinson, State Highway Engr., New Orleans.

Alexandria, La.—Bids desired until May 19 by S. Weil, City Secy., to pave with vertical fiber vitr. brick Bolton Ave. and Lee St.

Following are bids opened May 3 by Comr. Road Dist. No. 2 (J. P. Turregano, Chmn.) for approximately 25 miles of gravel road in Dist. No. 2 of Rasides Parish: Wetzel Bros., Bossier City, La., $83,596; Hampton Reynolds, New Orleans, $90,371; Gailey & Clark, Alexandria, La., $97,421; Owens Constr. Co., Vicksburg, Miss., $105,725; S. E. Gano, Jackson, Miss., $110,977. Ira W. Sylvester, Engr., Alexandria.

Convent, La.—Citizens of Parish of St. James voted $200,000 bonds for road improvements.

★**New Orleans, La.**—Contract for constructing Abbeville-Kaplan Highway awarded by State Highway Dept. to Shackelford Co., at $14,664.

Plaquaminine, La.—About $80,000 paving bonds have been sold by Iberville Parish Police Jury.

Dayton, Tenn.—About $250,000 Rhea County road bonds have been sold.

★**Knoxville, Tenn.**—Contract for paving with Mexico asphalt Jackson and Washington Aves. in Park R. Station, awarded by City Council to Murray Constr. Co., Knoxville, at $1.24 per sq. yd.

★**Akron, O.**—Contract for paving Richfield-Bath highway awarded by County Comrs. to E. McShaffrey & Son, Akron, at about $75,000.

Arlington, O.—Bids desired by City Clerk until June 7 for 6000 sq. yds. brick pavement on Main St., sandstone and cement curb, on concrete and sand foundation; cost about $16,500. Engineer, W. K. Stingfellow, Findlay, O.

Bethesda, O.—The citizens voted to have 2 miles streets.

Bowling Green, O.—About $195,000 Wood County stone road improvement bonds have been sold.

Canton, O.—County Comrs. considering paving Cairo-Hartville Road with concrete or brick, 45,000 sq. yd.

★**Cincinnati, O.**—Contract awarded Apr. 30 for cleaning and oiling roads to M. C. Whitemore Co., Dayton, at $25,000. A. Reinhardt, Clk. Co. Comrs.

Cleveland, O.—Bids desired until May 19 by A. R. Callow, Comr. Purchases and Supplies, for paving W. 76th, E. 65th and E. 138th Sts.

Construction of a boulevard and parkway encircling the city about 49 miles long is being considered by County Bd. Park Comrs. and County Engr.

Columbus, O.—See "Bridges."

★**Columbus, O.**—Contracts for paving awarded by Bd. Public Service as follows: Neil Ave. with asphalt to Andrews Asphalt Co., Hamilton, at $54,000; Linen Ave. with asphalt to Cleveland-Trinidad Paving Co., Cleveland, at $32,000; Park Ave. with brick to Monarch Constr. Co., $27,000, and Bryden Rd. with asphalt to A. C. Pugh, at $10,000.

About $72,000 bonds have been sold for macadamizing 7½ miles county roads.

Dayton, O.—City Council has authorized bond issue of $32,500 for city's share of a number of street paving jobs, the intersection paving; also a bond issue for paving Herman Ave., Summers, Wyoming and Longworth Sts.

★**Fremont, O.**—Contract for paving with Metropolitan brick on Wayne St. awarded by Bd. of Control to Modern Constr. Co., Fremont, at $13,049.

★**Findlay, O.**—Contract awarded May 1 for paving Cherry and E. Lincoln Sts. to C. B. Hall & Son, Findlay, at $10,122 and $6,085, respectively. Jos. Page, City Clk.

Bids reported desired May 15 by Bd. Pub. Service for 3550 sq. yds. paving on Midland St. All materials considered.

Lima, O.—Bids reported desired May 18 by H. J. Lawlor, Co. Aud. for creosoted block floor on Hunsaker Bridge No. 25283-A on Lincoln Highway over Auglaize River in Marion Township.

Melmore, O.—Bids desired until May 25 by Bd. Trus., Eden Township, Melmore, to furnish material and improve portions of the Negrotown, Glenn, Morrison and Baker roads. J. W. Price, Engr., Attica.

Mt. Gilead, O.—Bids reported desired until May 28 by C. O. Higgins, Co. Aud., for macadamizing 3½ miles Marengo Rd. No. 2, Bennington Township.

★**Oak Harbor, O.**—Contract awarded Apr. 27 for paving Locust St. to the Modern Constr. Co., Fremont. L. Carstensen, City Clk.

Painesville, O.—Bids reported desired until May 25 by Martin A. Luther, Dir. Pub. Service, for paving Lusard St. with brick on concrete base. Probable cost $8,000.

★**Port Clinton, O.**—Contract awarded Apr. 26 by County Comrs. for grading, draining and macadamizing a road in Carroll Township about 2 miles in length, to Modern Constr. Co., of Fremont, at $15,342. D. L. Mackey, Co. Aud.

Portsmouth, O.—Bids reported desired until May 24 by Thos. C. Patterson, Co. Aud., for 3313 ft. road in Jefferson Township and 12,000 ft. in Harrison Township.

Sandusky, O.—Following are lowest bids recently opened by City Council for paving: Columbus Ave., Earl Waters, Sandusky, brick with stone curb, at $27,227; Adams St., Federal Asphalt Co., Hamilton, at $18,012; Fulton St., from Water St. to Adams St., Federal Asphalt Co., for asphalt, $9,731, and A. G. O'Donnel, on brick, $9,849; Division St., J. C. Devine, concrete pavt., at $4,592.

About $51,000 Main Market Rd. bonds have been sold by County Comrs.

Savannah, O.—Bids desired until June 1 by Bd. Trustees, Clearcreek Township, Savannah, for $45,000 bonds issued for the purpose of constructing 5 miles of road in said township, by grading, draining and macadamizing.

Swanton, O.—New bids desired until May 24 by Wm. B. Elwell, Village Clk., for paving Chestnut St. from Main St. to east corporation line of village. Geo. Champe, Engr., Toledo.

★**Verona, O.**—Contract awarded Apr. 21 for 6324 sq. yds. macadam pavement to H. W. Curry, Eaton, at $8,276. V. J. Shilt, Village Clk.

Wauseon, O.—Bids desired until May 18 by W. W. Ackerman, Co. Aud., for constructing stone roads as follows: Franklin Rd., 2½ miles; Clinton Rd., 1 mile; Dover Rd., 1 mile.

Indianapolis, Ind.—Bids reported desired May 17 by Bd. Pub. Wks., for curbing, paving, etc. in Parkway from 18th to 30th Sts.

Marion, Ind.—Specifications have been prepared by County Comrs. for paving from Soldiers Home to 38th St. bridge with waterbound macadam, base and tar wearing course.

★Contracts awarded by County Comrs. as follows: To Gar & Black, Marion, at $29,000 for 2 miles waterbound macadam road from Upland to Matthews; to be 3-course pavt., 2 in. 1½ in. and screenings; also to Will Williams, Marion, at $21,000 for 2 miles Tarvia pavt. north of Fairmont.

Richmond, Ind.—Bids desired by B. A. Bescher, City Clk., until May 20 for paving N. A St. from 5th to 16th Sts. F. R. Charles, City Engr.

Detroit, Mich.—Contract is about to be let for paving with concrete Main St. Ojibway proposed site of United States Steel Cor.; cost about $150,000.

Dowagiac, Mich.—City Council voted to pave with concrete and tarvia portions W. Division, Orchard and Oak Sts.

★**Grand Rapids, Mich.**—Contract for paving with asphalt Monroe Ave. awarded by Bd. Public Works to Carpenter Constr. Co., at $14,125.

Pontiac, Mich.—County Road Committee and County Road Commission have voted to build one-mile stretch of road in each of 11 townships.

Chicago, Ill.—Bids desired until May 17 by Bd. Local Improv. (Edw. J. Glackin, Secy.), for grading and paving portions of N. Avers Ave., W. 52d, W. 32d, E. 133d and a number of other streets.

Chicago, Ill.—Bids desired until May 21 by Bd. Local Improv. (Edw. J. Glackin, Secy.) to construct cement sidewalks on a number of streets.

Danville, Ill.—No bids will be opened May 17 by Bd. Superv. for constructing approximately 174 miles of permanent hard roads in Vermilion County as advertised in Engineering Record of May 8, on account of a suit which has been filed against the County on this proposition. The County is now proceeding with the preliminary work and everything will be completed up to the letting which will be in the near future. For further information address W. S. Dillon, Supt. of Highways.

Elgin, Ill.—The Bd. Local Improvements voted to pave Porter and Worth Aves.

Illinois.—Contracts awarded May 5 by State Highway Comn., Springfield, for following State paving work:

★Ford County, brick, Sect. A, 5900 ft., awarded to Metz & McVey, Gary, Ind., at $14,845. Next 3 lowest bids: J. E. Bretz, Springfield, $14,886; Chas S. Upham, Odell, $15,150; Rees Bros., Quincy, $15,650.

★Pike County, concrete, Sect. A, 7800 ft., awarded to Cameron & Joyce, Keokuk, Ia., $11,469. Next 3 lowest bids: H. Cutler & Co., Gary, Ind., $11,589; Ajax Constr. & Eng. Co., Gary, Ind., $11,777; Rees Bros., Quincy, $11,949.

★Shelby County, concrete, Sect. A, 4800 ft., awarded to Herrick Contr. Co., Carlinville, $6,263.

★Kankakee County, concrete, Sect. B, 1200 ft., awarded to Bloodgood & Somerville, Harvey, $1,990.

★Bureau County, concrete, Sect. C, 4000 ft., and Sect. D, 4200 ft., both sections awarded to C. W. Jensen & Co., Chicago, at $11,840.

Illinois.—Bids desired May 26 by State Highway Comn., Springfield, for constructing state roads as follows (cement to be furnished by the state):

Calhoun County, Sect. A, macadam, 1920 ft., cost $2,340 (no material furnished by state).

St. Clair County, Sect. A, concrete, 9000 ft., cost $20,942 (exclusive of cement).

Joliet, Ill.—About $93,000 is to be spent by city for paving E. Cass, S. Ottawa, Frank Sts., 4th and Western Aves., etc.

Lewistown, Ill.—Plans completed by Fuller-Coult Co., St. Louis, Mo., for 12,000 sq. yds. brick paving on concrete base, pitch filler, concrete curb and gutter. Bids will be received in about 60 days.

★**Beloit, Wis.**—Bids were opened Apr. 10 at office of Pub. Wks. Com. (Geo. P. Haynes, Chmn.) for furnishing material and improving portions of Bushnell Chapin, Church, Clary, Harrison and 19 other streets, requiring 128,000 sq. yds. paving, 85,300 lin. ft. curb and 500 lin. ft. covered gutter. Contract was awarded May 3 to White Constr. Co., Milwaukee, for the asphalt paving (about 90 per cent. of the work); their bid on sheet asphalt, 25,000 sq. yds. or over, using Trinidad asphalt, was $1.37 per sq. yd., or for Mexican asphalt $1.27 per sq. yd.; asphalt concrete, using Trinidad, $1.20 per sq. yd., or using Mexican brand, $1.15 per sq. yd., combined curb and gutter, 30 cts. per lin. ft., excav. 25 cts. per cu. yd.; covered concrete gutters, 50 cts. per lin. ft. Geo. Weish, of Beloit, secured contract for balance of work, using brick. He bid for brick, using Barr block, on 25,000 sq. yds. or over, $1.86 per sq. yd., or $1.90 using Purington block, $1.99 per sq. yd. for vitr. block using necessary concrete between the ties; excav., 38 cts. per sq. yd., combined curb and gutter, 48 cts. per lin. ft.

★**Kaukauna, Wis.**—Contract awarded for improvements of portions of Wisconsin Ave. and Main Canal and Lawe Sts. and about 12 blocks asphalt to White Constr. Co., of Milwaukee.

★**Burlington, Ia.**—Contract awarded May 3 for paving with concrete as follows: Gunnison St., to Elmer Gochanour, of Grand View, at $1.15 per sq. yd.; and for South St., to Keokuk Quarry & Constr. Co., Keokuk, at $1.09 per sq. yd. Robt. Kroppach, City Clk.

Cedar Rapids, Ia.—Bids desired until May 21 by J. L. Storey, City Clk., to furnish material and improve portions of Park and Washington Aves., 17th, 18th and several other streets. Bids desired on vitr. paving block, vertical fibre paving block and asphaltic concrete.

★**Des Moines, Ia.**—Contract for paving with brick 30,647 sq. yds. on E. Grand Ave. awarded by City Council to Reinking & Co., Des Moines, at $1.69 per sq. yd.

★**Iowa Falls, Ia.**—Contract awarded Apr. 30 for paving to Ford Paving Co., Cedar Rapids, Ia., as follows: 13,000 sq. yds. asphaltic concrete, $1.59; 2000 cu. yds. extra grading, 40 cts.; 7500 lin. ft. cement curbing, 33 cts.; 7500 lin. ft. cement curb and gutter, 43 cts.; 2000 sq. yds. reinforcements, 12½ cts. E. L. Marriage, City Mgr.

Rockwell City, Ia.—Bids reported desired until May 17 by E. C. Stevenson, Mayor, for 75,000 yds. paving. Bruce, Sanderson & Boynton, Engrs., 430 Bee Bldg., Omaha, Neb.

Brainerd, Minn.—New bids desired June 1 by C. W. Mahlum, Co. Aud., for redecking with creosoted blocks Laurel St. Bridge over Mississippi River.

Center City, Minn.—Bids reported desired until May 17 for 19,865 ft. gravel road construction. A. F. L. Stromgren, Co. Aud.

Green Isle, Minn.—Bids reported desired May 14 by Co. Comrs. for grading, turnpiking and graveling roads.

★**Starkville, Miss.**—E. C. Thomas, Engr., Nash Bldg., Starkville, writes following are 4 lowest bids opened May 1 for constructing county highways, to include 51,000 tons novaculite, etc.: (a) F. D. Harvey & Co., Memphis, Tenn. (awarded contract); (b) Owens Constr. Co., Brookville; (c) Boyd & Bradshaw, Columbia; (d) McTegue, Huey & McTegue, Hazelhurst.

	*(a)	(b)	(c)	(d)
93,935 cu. yds. earth excav.	$0.195	$0.19	$0.25	$0.19
8,890 cu. yds. rock excav.	.33	.46	.42	.30
128 cu. yds. reinforced concrete	12.50	12.00	12.00	15.00
168 cu. yds. plain concrete	11.00	10.00	10.00	15.00
717 lin. ft. pipe	.15	.20	.10	.50
51,000 tons novaculite	.51	.535	.59	.70
36,000 tons novaculite to haul 2.38 miles	.21	.195	.20	.20
6 x 2 miles pipe to haul (per ton-mile)	.25	.25	.40	1.00
Totals	$117,703	$118,177	$126,116	$127,236

★Items marked thus give the names of parties awarded contracts.

★**Duluth, Minn.**—Contract awarded by City Council for improvement of E. 9th St. to D. H. Crough & Co., at $24,128. The improvement consists of macadam paving, concrete curb and storm sewer.

★Contract has been awarded to A. N. Nelson for paving Woodland Ave. with 1-course reinforced concrete, at $17,793. Lyonel Ayres, City Engr.

St. Paul, Minn.—Bids reported desired until May 17 by August Hohenstein, Purchasing Agt. for grading and paving portions of various streets (8 jobs).

Great Bend, Kan.—Bids desired until May 21 by F. A. Moses, City Clerk, for 23,580 sq. yds. asphaltic concrete pavt. H. A. Rowland, Engr., McPherson.

Fall City, Neb.—Bids reported desired May 29 by Geo. Riechers, City Clk., for paving, curbing and guttering, to cost about $50,000.

Billings, Mont.—City Council voted to spend about $60,000 for street pavements in western section of city.

Bozeman, Mont.—See "Sewerage and Sewage Disposal."

Kalispell, Mont.—City Council voted to construct concrete pavements on 2nd St.; cost about $27,000.

★**Sedalia, Mo.**—Contract for paving with vitrolic brick W. 4th St. awarded by City Council to Jos. W. Menefee, Sedalia, at $1.23 per sq. yd.

Springfield, Mo.—Bids desired by City Engineer until 8 p. m. May 18 for asphaltic concrete paving on Holland St., from Cherry St. to Grand Ave., 7425 sq. yds.; estimated at $1.60 per sq. yd.

★Contract awarded May 10 to Ozark Eng. & Contr. Co. for construction of 5,550 sq. yds. of tarvia filled macadam, at $1.05¼ per sq. yd., on Grand Ave., from National Boule. to Delaware Ave.

Little Rock, Ark.—Hugh R. Carter, State Highway Engr. estimates cost of constructing highway from Pine Bluff to Lincoln County line, distance of 18 miles, at about $100,000, to be built by Road Improvement Dist. No. 7, Jefferson County.

Sheridan, Ark.—Bids reported desired May 20 by M. W. Elkins, Secy. Road Improv. Dist. No. 1 for 28 miles of gravel road. Wm. J. Parker, Engr., Pine Bluff.

Clarksville, Tex.—Bids desired until May 31 by Bd. Aldermen for paving and curbing certain streets, including 7230 sq. yds. asphalt macadam, 13,531 sq. yds. verti. fiber brick, 1897 sq. yds. concrete pavt., 7058 lin. ft. combined concrete curb and gutter, 8410 lin. ft. plain concrete curb, etc., advertised in Engineering Record. E. F. Petersen, Engr., Muskogee, Okla. John Webb, City Clk.

★**Dallas, Tex.**—Contract for paving Peabody and Birmingham Sts. awarded by City Comrs. to Standard Engineering Co., 17 Battery Pl., New York, N. Y., at $15,414 and $11,108, respectively.

Eagle Pass, Tex.—About $25,000 bonds have been sold for road improvements in Maverick County.

★**Houston, Tex.**—E. E. Sands, City Engr., writes following is the unit prices of Eureka Paving Co., Houston, successful bidder for paving Main St. Boule. from G. H. & S. G. Ry. to Bellaire Ave., using Texaco asphaltic concrete (bids opened Apr. 12):

48,680 cu. yds. excav.	$0.275
10 inlets, Type "C"	29.00
1,000 ton-mile haul over 3000 ft.	.30
10 catchbasins, "A"	27.50
10 inlets, Style "B"	22.50
10 catchbasins and inlets (to adjust)	3.00
10 manhole tops (to adjust)	3.50
1,000 lbs. reinforcing bars in place	.019
10 cu. yds. extra brick work	8.75
1,000 lbs. extra cast iron	.03
100 sq. yds. 5-in. concrete base	.85
59,911 sq. yds. 6-in. concrete base	.93
100 cu. yds. extra concrete	6.00
2,000 man hr. extra work (per man hour)	.30
2,000 team hr. extra work (per team hour)	.70
23,083 lin. ft. standard concrete curb, 18-in.	.375
10 lin. ft. standard concrete gutter	.29
24,340 lin. ft. standard comb. curb and gutter	.53
100 sq. ft. standard concrete driveways	.175
100 sq. ft. standard concrete sidewalks	.145
10 lin. ft. stone curb (to adjust)	.25
1,000 lin. ft. standard stone header	.45
Sewer Pipe to Lay:	
100 lin. ft. 18-in. 3 to 6 ft. deep	1.45
100 lin. ft. 24-in. 3 to 6 ft. deep	2.10
100 lin. ft. 15-in. 3 to 6 ft. deep	1.15
100 lin. ft. 18-in. 6 to 10 ft. deep	1.60
100 lin. ft. 24-in. 6 to 10 ft. deep	2.30
100 lin. ft. 15-in. 6 to 10 ft. deep	1.30
100 lin. ft. standard plate culverts	3.00
1,565 lin. ft. curb bars in place	.18
59,911 sq. yds. asphaltic concrete paving (Texaco)	.74
Total	$143,726

Gregory, Tex.—Bids desired until May 21 by Bd. Permanent Road Comrs., Defined Rd. Dist. No. 1, to construct a system of highways, with required bridges, drainage ditches and an approach to the Corpus Christi Causeway. Bids to be submitted on acceptance of a $50,000 bond issue and also on a cash basis.

Kaufman, Tex.—Bids desired until May 21 by Commissioners' Court for $300,000 road bonds of Comrs. Prect. No. 3 and also $150,000 road bonds of Justice Prect. No. 8. Jas. A. Cooley, Co. Judge.

Kountze, Tex.—Bids desired until May 24 by County Comrs., Kountze, for clearing and grubbing, earth work, concrete arches, culverts, furnishing and laying shell, rock or gravel, etc., in construction of highways, Hardin County, Dist. No. 1 (Wm. Bradburn, Engr., Sour Lake).

Marshall, Tex.—City Comn. voted to spend $15,000 for paving W. Burleson, W. Houston, Ginocchio and N. Franklin Sts.

Oakville, Tex.—Citizens voted $40,000 bonds for improving roads in Road Dist. No. 4, in Live Oak County.

Tulsa, Okla.—About 50,000 sq. yds. asphalt paving contemplated. T. C. Hughes, City Engr.

Pueblo, Colo.—About 22,000 sq. yds. brick pavement contemplated. D. P. Gaymon, City Engr.

★**Anacontes, Wash.**—Contract awarded May 4 for 15,000 sq. yds. asphalt pavement on Commercial Ave., to Washington Paving Co. of Tacoma, at $23,777; Independent Asphalt Co., Seattle, bid for the work $25,943. C. C. Temple, City Clk.

Castle Rock, Wash.—City Council voted to pave with concrete 12,000 sq. yds.

★**Ephrata, Wash.**—Contract awarded May 3 for constructing a 7-mile highway to W. G. Mulligan Co., of Spokane, at $14,498. Next 3 lowest bids: Kazee & Preston, Ephrata, $15,973; G. L. Stickler, Davenport, $17,400; Mohr Constr. Co., Waterville, $17,906. F. H. Stradling, Co. Engr.

Garfield, Wash.—Contract is about to be let by City Council for grading, parking and constructing concrete sidewalks on California St.; cost about $10,000.

Montesano, Wash.—Bids desired May 24 by W. D. Campbell, Co. Aud. for constructing Permanent Highway No. 9, a distance of about 2 miles extending from Pacific to Moclips, and includes grading, constructing culverts, and an overhead crossing over Northern Pacific Ry. tracks, and surfacing with gravel. G. D. Robertson, Co. Engr.

Mt. Vernon, Wash.—Bids reported desired until June 8 by County Comrs. for improving about 2½ miles Montborn-McMurray Rd., involving about 25,000 cu. yds. common hardpan and rock excavation work. A. L. Strong, Co. Engr.

Seattle, Wash.—Bids reported desired until May 25 by County Comrs. (Byron Phelpse, Clk.) for constructing Vashon Island Rd., being Bond Issue Rd. No. 14. Probable cost, $50,000.

City Council voted to pave Railroad Ave., estimated cost $104,408.

City Council voted to pave Massachusetts, N. 45th, W. Hanford, W. Stacy Sts.

Lowest bid opened by Bd. Pub. Wks. for paving 9th Ave. west submitted by P. J. McHugh, 3rd Ave. West and Mercer St. at $39,430.

City Council voted to pave E. Olive, E. Pine, E. Union, E. Seneca, E. Madison and other streets in 12th Ave. regrade district; cost $226,000.

★**South Bend, Wash.**—Contract for constructing Permanent Highway No. 1-A from East Raymond to Giessey's Crossing awarded by County Comrs. to Allred & James, Centralia, at about $23,600.

Vancouver, Wash.—City Council voted to hardsurface and construct cement walks on Columbia St.; cost about $12,000.

Walla Walla, Wash.—Petitions are being considered for 15,000 sq. yds. paving. All classes specified. W. R. Rehorn, City Engr.

★**Washington.**—State Highway Comn. at Olympia awarded contracts May 3 as follows: Pacific Highway in Kalama south 3½ miles crushed rock to Porter & Conley, Portland, $11,576; Carrollton north 2 miles crushed rock to Montague & O'Reilly, Portland, $5,060, and Blaine south 3 miles crushed gravel to Worthen & Satterthwaite, Lynden, $6,444.

Washington.—Bids desired June 1 by State Highway Comn. at Olympia, for clearing, grading and draining about 6 miles of Pacific Highway, from Toledo south in Lewis County; clearing and grading 8½ miles of Pacific Highway between Lacey and Nisqually in Thurston County, 1 mile of National Park Highway across Mashell River Canyon, Pierce County.

Waterville, Wash.—Contract will be let about June 1 for constructing Permanent Highway No. 3 near Orando to be surfaced with gravel macadam and cost $21,000.

★**North Bend, Ore.**—Contract awarded Apr. 27 for paving to Warren Constr. Co., Portland, at the following bid: Excav. per cu. yd., 65 cts.; concrete curb and gutter, per lin. ft., 85 cts.; curb armor, per lin. ft., 15 cts.; 7862 sq. yds. gravel bitulithic, per sq. yd., $2.05; total cost about $19,338.

★**Portland, Ore.**—Contracts for paving awarded by City Council as follows: Shaver St. with asphaltic concrete to Oregon Independent Paving Co., Portland, at $29,381; Brooks St. with asphaltic concrete Giebisch & Joplin, Portland, at $13,577; E. 71st and E. Yamhill St. with concrete to Cochran & Nutting Co. at $12,570.

We are informed that the County paving work which is about to be let, includes 40 miles of redress over old macadam roads, and 30 miles of entire new pavement over new grade. This 30 miles includes the Columbia River Highway, which will be paved and in good shape this year. The work is to be paid for by a $1,250,000 bond issue for which citizens voted Apr. 14. Bids will be received on all closses of pavement, type to be selected at opening of bids. Following is the list of roads, and the appropriation on each. (Entire work will be in charge of J. B. Yeon, County Roadmaster, Room 504 Court House).

The above work is apportioned as follows

The Base Line Road, from Easterly boundary line of City of Portland to West line of County Road 533; cost $152,266.

Sandy Road from Easterly boundary line of Portland to Chanticleer; cost $335,916.

Columbia River Highway from Chanticleer to the Hood River—Multnomah County Line; cost $354,016.

Powell Valley Road from Easterly boundary line of the City of Portland to a point in the West line of Jane Powell, D. L. C. in Sec. 10; cost $128,935.

Foster Road from Easterly boundary line of Portland to the Multnomah-Clackamas County Line; cost $76,305.

Canyon Road from Westerly boundary line of Portland, to the Multnomah-Washington County Line; cost $39,350.

Capital Highway from Westerly boundary line of Portland to Multnomah-Washington County line; cost $95,814.

St. Helens Road from the West line of 29th St., Portland, to a point Northwest from North line of Blocks 13 and 14 in Linnton; cost $67,400.

South Bend, Ind.—The Bd. Pub. Wks. voted to pave Allen and Fulton Sts.

Tillamook, Ore.—County Court Tillamook County, is about to let contracts for constructing Bayocean Road, cost about $10,250.

★**Yoncalla, Ore.**—Contract awarded Apr. 24 for paving Front St., to Schell & Schell, of Medford, at $10,844. W. F. Lauman, City Recorder.

California.—Bids reported desired June 1 by State Highway Comn., Forum Bldg., Sacramento, for constructing following State roads (concrete pavt. unless otherwise stated):

Tulare County—About 3.9 miles.

Monterey County—10.3 miles about 4.7 concrete.

Colusa County—10.6 miles.

Humboldt County—6.9 miles grading.

El Centro, Cal.—About $100,000 highway bonds for road between Dixieland and El Centro have been sold by County Bd. Superv.

★**Los Angeles, Cal.**—Contract for improving to include 38,735 sq. ft. walks on Huntington Drive and other streets in Bairstown awarded to Geo. S. Benson & Son, Stimson Bldg., at $14,887.

★**Pasadena, Cal.**—Contract for 157,197 sq. ft. oil macadam pavements awarded to Andrew Holloway, 471 S. Broadway, at $18,806.

Porterville, Cal.—Plans and specifications are being prepared by City Engineer for paving Duncommon, "E," Fig. 2nd and Thurman Sts. and Murray Ave.

★**Riverside, Cal.**—Contract for macadamizing Fairmount Boule. awarded by city to Johnson-Shea Co., Riverside, at $11,397.

Sacramento, Cal.—The Assembly passed bill providing for $12,000,000 bond issue for completing construction of state highway system and mountain laterals.

Santa Ana, Cal.—Bids desired May 25 by Bd. Superv. Santa Ana, for improving El Toro Road, W. B. Williams, Co. Clk.

★**Santa Barbara, Cal.**—Contract for paving Valerio St. awarded to Municipal Improvement Co., San Francisco, at $31,138.

★**Stockton, Cal.**—Contract for paving with asphalt concrete streets in Northwestern section of city awarded by City Council to A. Teichert & Son at $27,375.

Ogden, Utah.—Washington Jenkins, City Engr., has been instructed to prepare plans and specifications for paving Madison Ave. from 25th to 28th Sts. with sheet asphalt on concrete base, approximately 11,000 sq. yds.

Ogden, Utah.—City Comn. is considering contracting 4-mile boulevard along Ogden River.

★**Emmett, Idaho.**—Contract for constructing 4½ miles road from Junction north and south forks of Payette to terminus of present road to Garden Valley to Morrison & Knudsen, Boise, at $10,000.

★**Garden Valley, Idaho.**—Contract for constructing 4½ miles road near Garden Valley awarded by Highway Dist. Comrs. to Morrison & Knudson, Boise, at $10,000.

Hull, Que.—Citizens voted May 3 to issue $57,000 bonds for local improvements, including sidewalks and streets.

Montreal, Que.—Bids desired until May 18 by Bd. City Comrs. (L. N. Senecal, Secy.) to construct cement and asphalt sidewalks.

St. Lamberts, Que.—Bids desired by E. Denkwater, Town Engr., until May 17, for paving 17 streets including Victoria, Bird, Front and Elm about 57,000 sq. yds. with sheet asphalt, and asphaltic concrete; cost $127,000.

Toronto, Ont.—About $120,000 is to be spent by County Bd. Highway Comrs. for road improvements.

STREET CLEANING AND GARBAGE DISPOSAL.

Items Arranged Geographically

Long Island City, L. I., N. Y.—The only bid received and opened May 5, by Maurice E. Connelly, Pres. Boro. Queens, for final disposition of garbage, rubbish, ashes and street sweeping in 5th Ward, Boro. Queens, during months of May, June, July, Aug., Sept. and Oct., 1915, and furnish and operate necessary dumps, scows, etc., was submitted by C. R. Van Netton, at $10,940.

New York, N. Y.—Bids desired until May 21 by Bd. Health, New York City (S. S. Goldwater, Pres.), to furnish labor and materials and equipment required for the removal of night soil, offal, dead animals, etc., from the several boroughs for a period of 5 years beginning July 1, 1915. Total security, $100,000.

Titusville, Pa.—This city is about to purchase a pickup sweeper. Address H. A. Holstein, City Manager.

★**Dayton, O.**—Contract for furnishing conveying and elevating machinery for garbage reduction plant has been awarded to the Caldwell Co., of Chicago, Ill., at $3,300.

Sheboygan, Wis.—Following are bids opened May 7 by Bd. Pub. Wks. (C. U. Boley, Chmn.) for a 12-ton garbage incinerator: Decacie Incinerator Co., Minneapolis, Minn., $8,800 with steel stack or $9,950 with brick stack; McGuire Incinerator Co., Chicago, Ill., $8,785, brick stack.

Superior, Wis.—The Bd. of Health is reported to have decided to construct a garbage incinerator; cost $9,000. Dr. C. M. Gould, City Health Comr.

Joplin, Mo.—An election will probably soon be held to vote on issuing $10,000 bonds for construction of an incinerator. Dr. D. R. Hill, Health Comr.

Springfield Mo.—There is reported to be a movement on foot here, looking to the construction of an incinerator. T. K. Bowmon, Mayor.

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Items Arranged Geographically

Dredging—Portland, Me.—Bids desired until May 25 by Maj. F. A. Pope, Corps Engrs., U. S. A., Portland, for dredging in Portland Harbor, Me., advertised in Engineering Record.

Wharf Improvement — New London, Conn.—Bids desired until May 22 by J. T. Yates, Lighthouse Inspector, 3d L. H. Dist., Tompkinsville, N. Y., for furnishing material and repairing U. S. Lighthouse Service Wharf at New London, Conn.

Waterfront Improvement—Brooklyn, N. Y.—The new plan of the Commissioner of Docks for improvement of waterfront and harbor at Mills Basin, Brooklyn, has been approved by the Sinking Funds Comn. This means that the so-called Jamaica Bay improvement will be pushed to completion. The Federal Government has appropriated $850,000 to drain channel, the State had ceded land under water and city has appropriate $10,000,000 for improvements of drainage and wharfage.

Canal—Long Island.—Governor Whitman is reported to have signed the bill appropriating $995,000 to secure lands and right of way for a canal to be constructed by U. S. Government on south side of Long Island. The survey of proposed location of canal, which has been made by engineers of U. S. Government, on Long Island, connects Jamaica Bay, Hempsted Bay, South Oyster Bay, Great South Bay, Moriches Bay, Shinnecock Bay and Peconic Bay. The appropriation takes care also of the necessary channels, basins, bridges, adjuncts and excavation.

Sea-Wall Repair—New York, N. Y.—Bids desired May 29 by Col. Fred. V. Abbot, Corps Engrs., U. S. A., New York, N. Y., for furnishing and placing rip-rap stone for repair and enlargement of sea wall at south of U. S. lands at Sandy Hook, N. J., advertised in Engineering Record.

Sea Wall—Stone Harbor, N. J.—Borough Council reported to be considering the construction of a combined bulkhead, sea wall, boardwalk and jetty system.

★*Items marked thus give the names of parties awarded contracts.*

Dam—Cincinnati, O.—Following are 5 lowest bids opened by Lieut. Col. H. Jervey, Corps. Engrs., U. S. A., Cincinnati, for reconstructing in concrete, top of Dam 2, Muskingum River: (a) G. T. Fogle & Co., St. Albans, W. Va., $34,308; (b) Clifton Bros., Zanesville, $36,040; (c) Benjamin Douglas Co., Detroit, Mich., $36,780; (d) J. A. Swingler Contr. Co., Zanesville, $37,180.

	(a)	(b)	(c)	(d)	(e)
4,500 cu. yds. excav.	$0.90	$1.10	$1.80	$1.25	$1.00
5,100 cu. yds. concrete	4.15	4.00	2.30	4.10	4.20
100 sq. ft. cut-off timbers	.50	5.00	1.80	.50	2.00
13 M. ft. sheet piling	49.00	65.00	135.00	68.50	50.00
5,100 bbls. cement, bbl	1.36	1.45	2.15	1.50	1.75

★**Cargo Doors, Etc.—Philadelphia, Pa.**—Contracts awarded May 6 by Dept. Whaves, Docks and Ferries (Geo. W. Norris, Secy.) for work on Piers 38 and 40, as follows: Cargo doors at Southwark and Delaware piers, bet. Catherine and Christian Sts., to Kinnear Mfg. Co., Columbus, O., $17,231; electric wiring of both piers, the United Electric Constr. Co., Philadelphia, at $26,675; for asphalt paving on Pier 38, to Eastern Paving Co., Philadelphia, at $13,300, and to Field Barber & Underwood, Philadelphia, for wood and granite blocks on piers, $7,188.

Creek Wall—Wilkes-Barre, Pa.—B. K. Finch, City Engr., writes bids were opened Apr. 30, for wall along Solomons Creek, and the lowest bid was submitted by C. J. Carroll, as follows: Concrete per cu. yd., $5.90; excav. per cu. yd., 80 cts.; total $12,625. Next 3 lowest bids: Davis & Parry, $12,710; D M. Rosser, $13,492; Arthur Casey, $13,633.

Water Turbines, etc., Wheeling, W. Va.—Bids desired until June 2 by Maj. T. R. Jackson Corps Engrs. U. S. A., Wheeling, for furnishing and delivering water turbines, air compressors, valve jacks, and gate winches, etc., for Dams Nos. 15 and 19, Ohio River, advertised in Engineering Record.

★**Drainage—Charlotte, N. C.**—Contract awarded May 3 by the Mecklenburg Drainage Comn. (W. S. Pahrr, Secy.) to Georgia Constr. Co., Augusta, Ga., for drainage improvements in McAlpine's Creek Drainage Dist. No. 1, at 5.6 cts. per cu. yd. for earth excav. and $2 per cu. yd. for rock excav. Work consists of about 7 miles dredging ditches, containing approximately 312,000 cu. yds.

★**Levee Work — Augusta, Ga.** — Nisbet Wingfield, Ch. Engr. River & Canal Comn., writes following are lowest bids opened Apr. 27 for constructing an earth levee along Savannah River, below Augusta, Sects. 5 and 6:

★Sect. 5, 516,000 cu. yds., Globe Dredging Co., Savannah, 9.9 cts. per cu. yd. (awarded contract); Henry C. Morrison and C. E. Glover, Augusta, 11.5 cts.; Louisiana Contr. Co., Baton Rouge, La., 11.9 cts.

★Sect. 6, 512,000 cu. yds., Henry C. Morrison & C. E. Glover, Augusta, 14.5 cts. (awarded contract); Crow Contr. Co., Mt. Pleasant, Tenn., 14.98 cts.; Globe Dredging Co., 15.83 cts.

★**Stone—Savannah, Ga.**—Contract reported awarded for 40,000 tons of stone for jetty work at Savannah to the McCabe Quarries Cement Building Materials Cor., of Charleston, S. C.

Drainage—Darrow, La.—Following are bids opened May 4 by the Bayou Conway Drainage Dist. for drainage work, including 98,300 cu. yds. excav. and clearing, and erecting 5 wooden highway bridges (price given per cu. yd.): Picard, Buckmaster & Weil, New Orleans or Gonzales, La., 6.49 cts.; A. J. Brumbaugh, 4431 Carrolton Ave., New Orleans, 7.5 cts.; D. B. Gore & Co., New Orleans, 7.73 cts.; R. H. & G. A. McWilliams, 1111 McCormick Bldg., Chicago, Ill., 7.9 cts.

Ditches—Canton, O.—County Comrs. considering construction of Sugar Creek ditch, 12 miles, and Domer ditch, 2 miles.

Steel Locks for Dam 29—Cincinnati, O.—Bids were opened Apr. 27 by Lieut. Col. H. Jervey, Corps Engrs., U. S. A., Cincinnati, O., for furnishing and erecting steel lock gates for Dam No. 29, Ohio River, and following are totals of 4 lowest bids, also unit prices of 2 lowest bidders: (a) C. A. Turner, Inc., Pittsburgh, Pa., $26,314; (b) Independent Bridge Co., Beaver Ave., Pittsburgh, $26,492; Alliance Structural Co., Alliance, $26,830; J. and J. B. Milholland Co., 714 5th Ave., Pittsburgh, Pa., $27,121:

	(a)	(b)
414,000 lbs. structural steel.	$0.042	$0.0347
82,700 lbs. forgings	.041	.05
6,000 lbs. bolts, etc.	.052	.05
20,600 lbs. iron castings	.034	.05
43,400 lbs. steel castings	.0545	.10
2,550 lbs. bronze	.55	.60
84 lbs. rubber	.90	1.50
9.5 M. ft. oak timber	71.50	70.00

★**Dredging — Detroit, Mich.** — Contract awarded by Lieut.-Col. Mason M. Patrick, Corps Engrs., U. S. A., Detroit, Apr. 28, for dredging ship channel in Lake St. Clair, Mich., to Greiling Bros. Co., of Green Bay, Wis., at 11.45 cts., per cu. yd., scow measure.

★**Dredging — Duluth, Minn.**—Following are the bids for dredging opened May 4 by Maj. E. D. Peek, Corps Engrs., Duluth—(a) Sec. 1, Ontonagon, Mich., dredging 30,000 cu. yds.; (b) Sec. 2, upper entrance Keweenaw Waterway, Mich., dredging 20,000 cu. yds.; (c) Sec. 3, Harbor of Refuse, lower entrance Keweenaw Waterway, Mich., dredging 498,000 cu. yds.; (d) total: Northern Dredge & Dock Co., Duluth, (a) 9 cts., (b) 12 cts., (c) 20 cts., (d) $104,700; Great Lakes Dredge & Dock Co., Duluth, (a) 20 cts., (b) 15 cts., (c) 8.75 cts., (d) $52,575; Zenith Dredg. Co., Duluth, (a) 14.25 cts., (b) 14.25 cts., (c) 9 cts., (d) $51,945 (recommended for acceptance).

Ditch Work—Litchfield, Minn.—Bids reported desired until May 17 by A. O. Palmquist, Co. Aud., for constructing ditch No. 36, estimated to cost $19,902.

★**Ditch—St. James, Minn.**—Contract awarded Apr. 30 for constructing Judicial Ditch No. 9, counties of Watonwan and Martin, to G. Christensen, of Clear Lake, Ia., at $31,650.

Irrigation — Eureka, Mont. — Bids for construction of a complete gravity irrigation system for about 10,000 acres will probably be advertised for in about 30 days. Entire work of contract under direction of the Engineering Cor. of Helena. (A. W. Verharen, Vice Pres.).

Drainage Work—Bellingham, Wash.—Bids desired May 25 by W. D. Wallace, Co. Aud. for digging, excavating, dredging and constructing main ditch for water way and 3 laterals in Drainage Dist. No. 7. Cost reported at about $30,000.

Stone for Jetty—Lone Tree, Wash.—Following are bids opened Apr. 28 by Lieut.-Col. J. B. Cavanaugh, Corps Engrs., U. S. A., Seattle, to furnish and deliver stone for jetty construction at Lone Tree, Gray's Harbor: Hercules Sandstone Co., Tenino, $310,000; McCormick Lumber Co., McCormick, $350,000; Owens & Eden, Seattle, $386,000; J. M. Clapp, Seattle, $342,000; Cascade Contract Co., Portland, Ore., $330,000.

Seawall—Seattle, Wash.—City Council has adopted resolutions providing for construction of a seawall on west margin of Railroad Ave. from Madison St. to Washington St.; filling of street and paving westerly 40 ft. with brick. The plan provides for a concrete seawall on a piling foundation protected by riprap and 12-ft. sidewalk on west side of street; cost $200,000.

★**Irrigation Work—Payson City, Utah.**—Contract awarded by U. S. Reclamation Service, Provo, for construction involving about 8000 yds. of canal excav. and 1350 yds. of reinforced concrete, to the Greene Constr. Co. of Tooele, at $14,300. Work is located near near Payson City.

Power Plant—Price, Utah.—J. H. Manson, of Price, has petitioned the State Engineer, at Salt Lake City, for 250-second ft. of the flow of Price River, to be diverted through a canal 9348 ft. long and returned to natural course after use for power purposes; electric power generated to be used for light and power in Carbon and Emory Counties. A power plant will be constructed on Price River below Helper.

Dam—Montreal, Que.—Bids desired until June 15 by Quebec Streams Comn., McGill Bldg., Montreal (O. Lefebvre, Ch. Engr.), for storage dam at La Loutre on St. Maurice River.

Dredging—Toronto, Ont.—Bids desired May 20 by R. C. Desrochers, Secy., Dept. Pub. Wks., Ottawa, Ont., for dredging at Toronto Eastern Gap.

Hydro-Electric Plant—Kelowna, B. C.—City Council considering constructing a municipal hydro-electric plant, to cost $120,000. Engineers, Du Cane, Dutcher & Co., Vancouver.

Dredging—New Westminster, B. C.—Bids reported desired until May 27 by R. C. Desrochers, Secy. Dept. Pub. Wks., Ottawa, Ont., for dredging required at Shoal Passage, Howe Sound, Comox-Atlin Dist., B. C. C. V. Worsfold, Dist. Engr., New Westminster.

★**Pumping Plant for Drydock—Panama.**—Contract for furnishing material under Circular 891 for complete pumping plant for Dry Dock 1, Balboa Terminals, Balboa, Canal Zone, Isthmus of Panama, has been awarded by the Panama Comn., Washington, D. C., to Henry R. Worthington, of New York. Contract involves design, fabrication and delivery on the Isthmus of structural, mechanical, electrical and hydraulic parts required for this installation. The pumping plant comprises 4 main pumps, 2 drainage pumps and 1 bilge pump; also all hand and power operated gate valves as well as automatic check valves. Structural work to be furnished by contractor includes floors, platforms, gangways, ladders, stairs and hand rails necessary for safe and convenient access to all parts, operation, lubrication, test and repair, and required for access, support and erection of all pumps, motors, controls, shafts, bearings, valves, piping and all other parts of the pumping plant. Time for complete delivery of all material about 210 days.

ELECTRIC RAILWAYS.

Items Arranged Geographically

Walden, N. Y.—Surveys are about to be made by Thomson & Wooster, Walden, for electric railway to connect Orange County Traction Co.'s line at Walden with the Wallkill Transit Co.'s line at Goshen.

Germantown, Pa.—Plans are being considered by Business Men's Asso. to build an electric line in East Germantown.

Lynchburg, Va.—About $85,000 will be spent by Lynchburg Traction & Light Co. for rehabilitating its wire system.

Parkersburg, W. Va.—Kanawha Traction & Electric Co. chartered to build an electric railway. Mason C. Ambler, Edw. Brast, both of Parkersburg, among incorporators.

Baton Rouge, La.—Baton Rouge Electric Co. contemplates building $200,000 power plant to be 100 x 75 ft.

Dubuque, Ia.—Plans are being made by Union Electric Co. to rebuild 2 miles track.

Kansas City, Mo.—Plans are being considered by Kansas City Rys. Co. to build 14 miles of double track extensions in Kansas City.

RAILROADS.

Items Arranged Geographically

Philadelphia, Pa.—Local press reports state resolutions have been adopted in Select Chamber looking to abolition of all grade crossings in Willow and Front Sts., in the 13th Ward, and in Poplar, Front, Germantown Aves. and North American St., as far north as Allegheny Ave. The resolutions notified the Bureau of Surveys and the Philadelphia & Reading Ry. officials to confer with a view to removing the surface tracks; estimated cost of work, $6,000,000.

Reading, Pa.—Four plans for elimination of grade crossings have been submitted by Wm. H. Dechant & Son and Fred H. Dechant, engineers, to the Chamber of Commerce. The estimates range from $90,000 for the first to $1,250,000 for the fourth plan.

West Palm Beach, Fla.—The Palm Beach & Everglades R.R. Co., of West Palm Beach, reported formed, to construct a railroad from West Palm Beach through Palm Beacfh, Lee and De Soto Counties. T. J. Campbell, Secy.; Geo. G. Curry, Attorney.

Roby, Tex.—The Roby & Northern R.R. Co. reported incorporated to build a railroad from Roby, in a northerly direction to a connection with the Texas Central at North Roby, a distance of 5 miles; capital $10,000. Directors: C. L. White, Hillsboro; J. C. McWhirter, Roby, and others.

★**Tenino, Wash.** — Contract reported awarded by the Hercules Sandstone Co. to Dibble & Hawthorne, of Tenino, for constructing 7 miles of standard gauge railway from point near Tenino, on the Northern Pacific Ry. line, to the quarries of Hercules Sandstone Co.; estimated cost $50,000.

PUBLIC BUILDINGS AND SCHOOLS.

Items Arranged Geographically

Ashburnham, Mass. — Plans prepared by Cooper & Parker, of Boston, for a 3-story brick building to be erected at Cushing Academy to replace the boys' dormitory destroyed by fire.

★**Boston, Mass.** — Contracts recently awarded by Mayor for erecting schools were additions to Hyde Park High School, Chas. R. Grace, at $50,000, and high school for practical arts, to Julius A. Schweinfurth, at about $50,000.

Danvers, Mass.—Competitive plans reported desired until June 1 by D. N. Crowley, 81 Washington St., Salem, for a high school to accommodate 600 pupils, with an assembly hall to seat about 1000; also gymnasium, physical and chemical laboratory, library for school pupils, principal's room, teachers' room, 10 or 12 classrooms, ventilating, heating, etc.

Lynn, Mass.—Plans have been submitted to Public Property Comn. for a $100,000 school which it is proposed erecting in the Wyoma section of Lynn.

Nahant, Mass.—Bids desired by Elmer Smith Bailey, Archt., 33 Cornhill St., Boston, until May 20 to furnish material and erect the J. T. Wilson Junior High School on Nahant Rd., Town of Nahant. Separate bids desired for ventilating and heating.

Springfield, Mass.—Plans are to be prepared by G. P. B. Aldermen & Co., of Holyoke, for the Hampden County Training School for Boys to cost $100,000. Address Hampden County Comrs.

Worcester, Mass.—Following are four lowest bids opened May 6 by Mayor for erecting the North High School addition: Israel Goldman, Worcester, $199,985; Connors Bros. Co., New York, $201,450; Geo. Baker Long, Worcester, $204,750, and Edwin Outwater, New York, $208,000. John T. Simpson, Newark, N. J., Archt.

★Contract for erecting the addition to Cambridge St. School awarded to J. W. Bishop Co., of Worcester, at $39,494 (bids opened May 5). Next 3 lowest bidders: Jas. Miles & Sons Co., $41,610; Ernest Whitehead, $42,020; E. D. Ward, $40,573. S. Ziroli, Archt., 306 Main St.

Providence, R. I.—Aldermen have appropriated $165,000 for erecting a grammar school in 2d Ward. Jos. Gainer, Chmn. School Bd.

Providence, R. I.—H. C. Pelkey, City Clk., writes under date of May 6 that plans and specifications are being completed by Murphy, Hindle & Wright, 146 Westminster St., for the proposed school in the Mt. Pleasant section. Bids not yet called for.

Albany, N. Y.—Bids desired until May 18 by Trus. Pub. Bldgs., Capitol, Albany, for demolition of old power house at Lafayette, Elk and Hawk Sts., advertised in Engineering Record. Lewis F. Pilcher, State Archt., Albany.

Blackwells Island, N. Y.—Bids desired until May 20 by Dept. Pub. Charities, New York City (John A. Kingsbury, Comr.), to furnish labor and material required for underpinning the foundations of the female dormitory, Metropolitan Hospital, Blackwells Island. Security, $12,000.

★**Brooklyn, N. Y.**—Contract awarded to Wm. Kennedy Constr. Co., 215 Montague St., for erecting at 4th Ave. and 46th St. a 5-story addition to the hospital of the Norwegian Lutheran Deaconesses Home and Hospital; cost about $60,000. Foster & Gade, Archts., 15 W. 38th St., New York.

Buffalo, N. Y.—Plans completed for a 3-story and basement brick and stone addition to the school of St. Joseph Collegiate Inst., Main and Barker Sts.

Aldermanic School Com. has authorized a $400,000 bond issue for erecting school to replace No. 31.

Plans are to be prepared by Green & Wicks, of Buffalo, for the $3,000,000 municipal tuberculosis hospital to be erected on the West Farm site.

Central Islip, L. I., N. Y.—Bids desired until May 26 by State Hospital Comn., Albany (E. S. Elwood, Secy.), for erecting addition to laundry; also refrigerating plant at Central Islip State Hospital, Central Islip, N. Y., including construction, heating, plumbing, etc., advertised in Engineering Record. Lewis F. Pilcher, State Archt., Albany.

Gouverneur, N. Y.—Village Trus. (Jas. C. Dolan, Pres.) reported to be considering the erection of a grade school at a cost of $40,000, also a village hall at a cost of $30,000.

★**Hudson, N. Y.**—Contract for erecting the main hospital building at the State Training School awarded to Simon Russek, Inc., 261 Bway., New York, at about $65,000. Lewis F. Pilcher, State Archt., Albany.

New York, N. Y.—Bids desired until May 17 by Bd. Trus., Bellevue and Allied Hospitals (John W. Brannan, Pres.), for completing abandoned contract to furnish labor and material required for the masonry, carpentry, ornamental iron work, structural steel and iron work, metal work, roofing, electric work, gas fitting, etc., for alterations to power house and ambulance station, Harlem Hospital, 136th St. and Lenox Ave., Boro. Manhattan. Security $15,000.

North Brother Island, N. Y.—Bids desired until May 27 by Bd. Health, New York City (S. S. Goldwater, Pres.), to furnish material and erect a concrete pavilion; also a dormitory for female help at Riverside Hospital, North Brother Island, Boro. Bronx; also separate bids for plumbing and gasfitting, ventilating and heating.

North Elba, N. Y.—Town Comrs. said to be receiving competitive plans for the rebuilding of the town hall at a cost of $30,000. Willis Wells, Town Clk.

Port Jervis, N. Y.—Reported Bd. Educ. considering erecting a new high school to cost $75,000.

Rikers Island, N. Y.—Bids desired until May 18 by Katharine B. Davis, Comr. Correction New York City, to furnish and deliver material for East Wing and Administration Section of Disciplinary building on Rikers Island, Boro. Bronx. Separate bids desired for ornamental iron, windows, doors and other mill work and plumbing material. F. B. & A. Ware, Archts., 1170 Bway., New York.

Rochester, N. Y.—State Armory Bd., Albany, it is reported, will soon start erection of the armory on Culver Rd. for the Rochester Cavalry, Troop H, which is to cost $100,000. Walker, Livingston & Brackett, Archts., Rochester.

Syracuse, N. Y.—Bids desired until June 1 by the Bd. Comrs. for erecting and equipping a vocational high school; also separate bids for ventilating and heating, plumbing and gasfitting, electric wiring, elevators, etc. Merrick & Randall, Archts., Sedgwick Andrews & Kennedy Bldg.

★*Items marked thus give the names of parties awarded contracts.*

Tonawanda, N. Y.—Lowest bid received for erecting 3-story and basement brick and concrete school was submitted by Warren Constr. Co., Jamestown, at $76,-500. Pierce & Bickford, Archts., Elmira.

Utica, N. Y.—Bids desired until May 18 by A. M. Burke, City Compt., for $430,000 high school improvement bonds.

Yonkers, N. Y.—Plans being prepared by H. Lansing Quick, 18 S. Bway., for the 2-story Halstead School to be erected on Bway. and Lamartine Ave.; cost $40,000, Philipse Manor School Corp., owners.

White Plains, N. Y.—Bd. Superv. has engaged following architects (all of New York City) to prepare plans for county buildings: Walker & Gillette, 128 E. 37th St., for the almshouse; Jas. Brite, 18 E. 41st St., for hospital; Alfred Hopkins, 101 Park Ave., for penitentiary.

Collingswood, N. J.—Bids reported desired until May 20 by W. F. Ballinger, Secy. Bd. Educ., for alterations and addition to high school, also erecting a new school.

Hoboken, N. J.—Plans being prepared for a gymnasium and shops to be erected at Steven Technology Inst., at a cost of $100,000.

★**Jersey City, N. J.**—Contract reported awarded to M. T. Connolly Contr. Co., 238 17th St., for erecting a 3-story home for the blind on Pavonia and Baldwin Aves. for St. Joseph's Home for the Blind; cost, $100,000.

Trenton, N. J.—Reported lowest bid for the work complete for erecting the Junior High School was submitted by Saml. Mather & Son, of Trenton, at $204,900.

Revised plans being prepared by Geo. S. Drew, State Archt., for 2-story brick and concrete, 35 x 200 ft. House of Detention to be erected at State Hospital for Convicts and Criminal Insane.

★**Crafton, Pa.**—Contracts awarded Apr. 15 for erecting school on Ovey Ave. as follows: General construction, B. A. Groah, Philadelphia, Pa., $21,850; electrical work, Axthelm Electric Co., Pittsburgh, $345; plumbing, H. V. Houseman, Crafton, $1,675; heating, McGinness-Smith Co., Pittsburgh, $1,790. Theo. A. Keifer, Secy. Bd. Educ.

★**Meadville, Pa.**—Contract for erecting the chemistry hall at Allegheny College awarded to Cutherbert Bros., of Pittsburgh, at $40,253.

Philadelphia, Pa.—Mayor has signed the ordinance authorizing the purchase of the site at 32d St. and Lancaster Ave. for the new $200,000 armory for the National Guard.

★Contract for erecting school for Church of the Holy Child on Broad and Duncannon Sts. awarded to Wm. R. Dougherty, 1610 Sansom St., cost $50,000.

Plans being prepared for a 4-story building to be erected at Broad and Stiles Sts. for La Salle College.

Tarentum, Pa.—Bids desired until May 18 by School Dist., Boro. Tarentum (S. M. Kennedy, Secy., 320 E. 6th Ave.) for erecting and equipping a First Ward school; also separate bids for ventilating and heating, plumbing and electric wiring. P. C. Dowler, Archt., Arrott Bldg., Pittsburgh.

Cedartown, Ga.—School bonds amounting to $50,000 have been sold.

Macon, Ga.—See "Sewerage and Sewage Disposal."

St. Petersburg, Fla.—Plans are being prepared by Henry H. Du Pont & Co., St. Petersburg, for a high school costing $60,000.

Louisville, Ky.—Bids desired until June 8 by Comrs. of Fisheries, Washington, D. C., to construct a hatchery building at the Louisville Fisheries Station.

Cleveland, Tenn. — Site selected on which it is proposed erecting $25,000 high school. S. Y. Adcock, Supt. Schools.

Akron, O.—Bd. Trus. of the City Hospital is considering improvements which will include a maternity ward; cost $75,000.

Alliance, O.—Bids reported desired until May 28 by City Hospital (Col. W. L. Morgan, Secy.) to erect a 2-story and basement hospital; probable cost $80,000. Willard Hirsh, Archt., Sweetland Bldg., Cleveland.

Chillicothe, O.—Bids desired until June 3 by B. E. Stevenson, Clk. Bd. Educ., for erecting a school; also same time separate bids for heating.

Cleveland, O.—Bids desired until May 21 by A. R. Callow, Comr. Purchases and Supplies, for constructing a pavilion in Washington Park, including plumbing, electric wiring and lighting fixtures.

Delaware, O.—Bids reported desired until May 25 at office of Adjutant General of Ohio, Columbus, to erect an armory at Delaware.

Findlay, O.—Citizens voted Apr. 27 to issue $100,000 bonds for reconstructing county infirmary buildings. Address Clerk County Comrs.

Haskins, O.—Bids reported desired until May 21 by Bd. Educ. to erect a 2-story and basement, 70 x 85 ft. high school; probable cost $35,000. M. & M. Stophlet, Archts., Nasby Bldg., Toledo.

Miamitown, O.—Bids desired until May 20 by Bd. Educ. Whitewater Township, Rural School Dist., Miamitown, for erecting a school. W. W. Whitney, Clk., Dist. R. R. No. 1, Cleveland.

North Kingsville, O.—Bids reported desired until May 17 by Bd. Educ. to erect a 2-story and basement, 89 x 76 ft., school. Probable cost, $30,000. C. V. Martin, Archt., Ashtabula.

Seaman, O.—Bids reported desired until May 27 by Bd. Educ., to erect an 8-room school.

★**Troy, O.**—Contract awarded Apr. 24 for erecting school to A. M. Fry, of Piqua, for general construction at $31,375, and to Columbus Htg. & Ventilating Co., Columbus, for heating, etc., at $3,890. R. S. Hufford, Clk. Bd. Educ. F. L. Packard, Archt., Columbus.

Youngstown, O.—Bids desired until May 17 by Clerk Bd. Educ. to furnish material and complete the plumbing, structural steel and light iron work for the new school to be erected on E. Madison Ave. Stanley & Scheibel, Archts., Youngstown.

★**Youngstown, O.**—Contracts awarded by Bd. of Educ. as follows:

★Madison School: Mason work, Parish Bros., West Commerce St., $53,230; carpenter work and lumber, Fred. Holloch, $12,698; structural steel and iron work, Louis Adavasio, 414 Dollar Bank Bldg., $6,720; plumbing, Jacob Brenner, 208 W. Boardman St., $7,910.

★Chalmers Ave. School: Mason work, Jos. Buckheit, $54,850; carpenter work and lumber, Fred Holloch, $13,560; plumbing, H. C. Teal, 119 E. Commerce St., $8,262.

Woodsfield, O.—Citizens voted $50,000 bonds for erecting high school.

Woodsfield, O.—Citizens voted $50,000 bonds for erecting high school, plans for which have been prepared by Howard & Merriam, of Columbus.

Elkhart, Ind.—Following are four lowest bids opened May 1 by City Council for erecting the municipal and superior court building: G. W. Heinzman & Son, Indianapolis, $66,252; Jas. I. Barne, Logansport, $72,479; G. D. Bushnell, Elkhart, $72,632; Ingwell Moe, Gary, $72,781. Lowest bid for plumbing was from Dreve Bros., at $3,907; electric work, Electric Constr. & Sales Co., Cleveland, $4,604. E. Hill Turnock, Archt., Elkhart.

Flora, Ind.—Bids reported desired until June 1 by Bd. Educ. to erect a 2-story and basement high school addition. Layton Allen, Archt., Lombard Bldg., Indianapolis.

Indianapolis, Ind.—City School Bd. is about to ask bids for the $500,000 main library bonds. Plans for this building, to be erected north of St. Clair Park, have been approved by the Bd.

Winchester, Ind.—Bids reported desired until May 21 by Bd. Educ. (P. Kabel, Secy.) to erect a 2-story and basement grade school; probable cost $30,000. Elmer E. Dunlap, Archt., State Life Bldg., Indianapolis.

Caro, Mich. — Bd. Comrs. Michigan Farm for Epileptics at Wahjamega, Tuscola County, selected Pratt, Bickel & Campbell, of Bay City, as architects for the hospital buildings to be erected on the Farm, and to cost $200,000. Frank Mohr, of Bay City, a member of the Comn., may be able to give further information.

Detroit, Mich.—Bids desired until June 9 by Dept. Pub. Wks. (Geo. H. Fenkell, Comr.) for erecting municipal court building, advertised in Engineering Record. Smith, Hinchman & Grylls, Archts., Detroit.

★**Ewing, Mich.**—Contract for erecting the school to cost about $30,000 has been awarded to Anderson & Williams of Green Bay, Wis.

★**Owosso, Mich.**—Contract for erecting armory awarded to Rickman Constr. Co., Kalamazoo. Cost $30,000.

Port Huron, Mich.—Bd. Educ. is reported considering erecting a $100,000 high school. The question will be placed before the voters.

Chicago, Ill.—Bids desired May 19 by Com. on Bldgs. and Grounds, at office of Business Mgr. Bd. Educ., for erecting Bancroft School, also Crerar School, including heating and plumbing, etc.

Shiccton, Wis.—Bids desired May 17 by Anderson & Williams, Archts. Green Bay, for erecting the Union Free High School for Union Free High School Dist. Town of Lavina, Village of Shiccton, Dist. No. 1, including plumbing and electric wiring.

Wausau, Wis.—E. C. Lempeke is interested in company formed for the purpose of erecting an $85,000 hospital here.

Des Moines, Ia.—Bids desired May 20 by A. R. Corey, Secy. State Bd. Agriculture, Des Moines, for erecting a steel and brick sheep pavilion 180 x 234 ft. on State Fair Grounds. Smith & Keffer, Archts., 610 Youngerman Bldg., Des Moines.

★**Jefferson, Ia.**—Contract for erecting $50,000 building at the St. Collett's Inst. awarded to Ladien & Stengel, of Jefferson.

Primghar, Ia.—Bids desired until June 15 by Bd. Superv. for erecting a court house; also separate bids for plumbing and heating. Smith & Keffer, Archts., Des Moines, Ia.

Quasqueton, Ia.—Bids desired until May 31 by Harry G. Clark, Secy. Bd. Directors Independent School Dist. for erecting a 6-room school. Harry E. Netcott, Archt., Independence.

Vinton, Ia.—Bids desired until May 27 by W. E. Gilchrist, Co. Aud., to furnish material and erect a County Home; also separate bids for heating, plumbing and wiring for lights. J. G. Ralston, Archt., Waterloo.

Boyd, Minn.—Bids desired until May 31 by I. N. Brown, Clk School Bd. School Dist. No. 86, Lacqui Parle County, Boyd, for erecting high school including plumbing, heating, etc. H. Edw. Walker, Archt., 202 Lumber Exchange, Minneapolis.

Ghent, Minn. — Bids desired May 28 by Village Council for erecting a village hall. Harry Firminger, Archt., St. Paul. H. J. Bot, Village Recorder.

★**Northfield, Minn.**—Contract for erecting chapel and men's dormitory at Carleton College awarded to H. N. Leighton Co., Minneapolis, at about $100,000 ea.

St. Paul, Minn.—Bids reported desired by C. H. Johnston, Archt., Capital Bank Bldg., until May 20, to erect a hospital addition and chapel, 5 stories and basement, 45 x 90 ft., and 1 story and basement, 25 x 60 ft., for St. Luke's Hospital, $80,000 and $30,000, respectively.

Clay Center, Kan.—Bids reported desired until May 20 by Bd. Educ. (J. P. Otis, Clk.) to erect a 3-story, no basement, 66x96 ft. semi-fireproof school, including plumbing, heating and electric wiring. J. H. Felt & Co., Archts., Grand Ave., Temple.

★**Lawrence, Kan.**—Contract for erecting school awarded to A. R. Young & Co., Lawrence, at $51,314, heating and plumbing, to Graeber Bros., at $14,784.

Wichita, Kan.—New bids desired until May 20 by Bd. Educ. (J. Leland, Clk.) to erect Wenster Grade School, from plans of Crowell & Van Metr, Mudock Bldg.

Following are bids opened May 3 for the above school, all of which have been rejected: Deiter & Wenzel Constr. Co., Wichita, $41,604; Vandenburg & Co., Wichita, $43,073; Ellis Constr. Co., Wichita, $44,770; Hammond Constr. Co., Wichita, $50,999.

★**Grand Forks, N. D.**—Contracts awarded for erecting first unit of high school (bids opened Apr. 27) to Gray Constr. Co., of Watertown, S. D., at $169,919. Next 3 lowest bids on general construction: Ingemann & Co., St. Paul, Minn., $171,850; Splady-Smith Constr. Co., St. Paul, Minn., $173,200; Guthrie Constr. Co., St. Paul, Minn., $173,315; Healy Htg. & Plumbing Co., Minneapons, Minn., secured contract for heating, plumbing and ventilating at $33,000. W. J. Edwards, Archt., Grand Forks.

★**Granville, N. D.**—Contract awarded Apr. 26 by Bd. Educ. (O. M. Erickson, Pres.) for erecting a brick school to Northern Constr. Co. of Grand Forks, at $21,856. Haxby & Gillespie, Archts. Fargo.

Rolette, N. D.—Bids desired until May 24 by I. T. Simley, Clk. School Bd. for erecting a 2-story brick school. J. A. Shannon, Archt., Devils Lake, N. D.

Aberdeen, S. D.—W. M. Oates, Regents of Educ., writes no bids were opened May 6 for erecting a brick and tile warehouse on grounds of Northern Normal and Industrial School at Aberdeen, and it will be several weeks before contract is let.

Sioux Falls, S. D.—Bids desired until May 17 by Bd. Educ. (W. B. Fuller, Clk.) for erecting South Side Grammar School, also separate bids same time for annex to Lincoln Grammar School. Patton, Holmes & Flinn, Archts., 8 S. Dearborn St., Chicago, Ill.

Butte, Mont.—Voters recently favored proposition to use $100,000 bonds from the general fund for erecting an addition to the high school. J. Emory Rhein, Clk. Bd. Educ.

Reported Wilson & Cutting, of Butte, have been commissioned by School Bd. to prepare plans for a 3-story and basement reinforced concrete school, including gymnasium, to cost $75,000.

★**Beaumont, Tex.**—Contract for erecting 3-story addition to court house awarded to Herman Weber, of Beaumont, at $22,744.

Cleburne, Tex. — Following are four lowest bids opened Apr. 30 by School Bd. for erecting the (a) Irving School; (b) East Ward School, and (c) West Ward School: H. D. McCoy, (a) $36,396, (b) $36,070, (c) $23,669; J. A. Thomas, (a) $37,275, (b) $37,158, (c) $25,058; Bryce Bldg. Co., (a) $37,367, (b) $39,708, (c) $27,031; A. W. Flynt, (a) $38,396, (b) $38,602, (c) $25,927. Three lowest for plumbing, 3 buildings: H. W. Greenway, $8,050; Sanguinett Bros., $8,573; Hill & Co., $8,600; heating, H. W. Greenway, $10,675; McDonald Plevins Co., $11,475; Texas Htg. Co., $11,950. Lowest bid for wiring was Wortham Schotts, $2,145.

★Contracts for erecting above 3 buildings awarded to H. D. McCoy, of Cleburne, at $96,672, and for heating, plumbing and wiring to H. W. Greenway, of Ft. Worth, at $20,775.

Cuero, Tex.—Bids desired until June 21 by J. A. Wetmore, Acting Superv. Archt., Washington, D. C., for construction, complete (including mechanical equipment, interior lighting fixtures and approaches), of U. S. Post Office at Cuero.

Ft. Bliss, Tex.—Following are 4 lowest bids opened Apr. 30 by Maj. Wm. Elliott, Q. M., U. S. A., El Paso, for constructing, including plumbing, heating, electric wiring and fixtures, of a guard house and bakery at Ft. Bliss: Stanley Bevan, El Paso, Tex., $26,868; Jennings & Woods, El Paso, Tex., $27,950; John G. Barnes, Leavenworth, $28,448; Wm. Simpson Constr. Co., San Diego, Cal., $28,622.

Huntsville, Tex.—Bids reported desired until June 1 by John H. Bickett, Sr., Finance Comr., to construct 35 silos, 200 tons capacity on 7 State prison farms.

Rusk, Tex.—Bids desired until May 20 by the Rev. Walter T. Davis, Secy. Bd. Control, Rusk Academy, to furnish material and erect a girls' dormitory for Rusk Academy, Rusk. S. W. Ray, Archt., Jacksonville, Tex.

★**Wichita Falls, Tex.**—Contract awarded May 5 for erecting city and county hospital to Lisle Dunning Constr. Co., Oklahoma City, Okla., at $26,293. Next 3 lowest bids: Taylor Bldg. Co., Ft. Worth, $28,000; Whalen & Wood, Sherman, $28,-585; Maxwell & Stewart, Wichita Falls, $28,660. Field & Clarkson, Archts., 517 Kemp & Kell Bldg., Wichita Falls.

Okdahoma City, Okla.—Bids reported desired until May 24 by Bailey & Bailey, Archts., Oklahoma City, to erect a 2-story and basement, 28 x 90 ft. hospital for Dr. W. E. Dickens.

Seattle, Wash.—Bids reported desired until May 24 by County Comrs., to erect a Juvenile Detention Home at Spruce Sta. and Bway. Probable cost, $30,000. Geo. W. Lawton, City Archt., Alaska Bldg.

Walla Walla, Wash.—Lowest bid opened May 5 by Co. Comrs. for erecting the court house was submitted by M. J. Hursen, of Seattle, at $137,750, Boise stone, or $132,750 for terra cotta. Osterman & Siebert, Archts., Walla Walla.

Next 3 lowest bids on above: (a) Boise stone; (b) terra cotta; J. B. Sweatt & Co., Spokane (a), $139,500, (b) $132,800; Finne & Gjarde, Seattle (a), $141,940, (b) $144,231; J. J. Lohrenz, Spokane (a) $142,265.

★**Pendleton, Ore.**—Contract for erecting U. S Post Office was awarded to Jas. S. Winters, Portland, Ore., at about $99,537.

Salem, Ore.—Methodist Church of Oregon, is to receive through the will of the late Wm. W. Brown, $500,000 to establish an industrial school for boys and a home for aged ministers at Salem.

Bids reported desired until May 19 by State Architect, Salem, to erect a 3-story reinforced concrete addition to Eastern Oregon Hospital.

Bids desired same place as above until May 20 for an addition to State Insane Asylum. Probable cost, $100,000.

Fresno, Cal. — Citizens voted $40,000 bonds for erecting a school in Kingsbury Dist.

Los Angeles, Cal.—Later official reports state that bids will be received until May 18 by Wm. A. Sheldon, Secy. Bd. Educ., for erecting the brick, concrete and plaster high school on Ave. 54 and Irvington Pl., to include a 31-room main building and an 8-room science building.

Needham & Cline, 615 Brockman Bldg., reported preparing working plans for 3 buildings, brick and reinforced concrete, for the Lincoln High School on Pritchard St. and N. Bway., to cost $90,000.

Bids desired May 20 by Bd. Educ. (Wm. A. Sheldon, Secy.) for erecting a school on Budlong Ave.; plumbing in 14th St., Intermediate and Staunton Ave. and 66th St. Schools; heating in Miramonte School, 71st St. and Comptony Ave. and Staunton Ave. school.

★**Norwalk, Cal.**—Press report states that contract for erecting kitchen building and power house at Norwalk State Hospital (bids opened May 4 by Geo. B. McDougall, State Architect, Sacramento) awarded to E. L. Bergen & Son, of San Francisco, at $114,872, to be completed in 120 days.

★**San Francisco, Cal.** — Contract for structural steel for the library to be erected in the Civic Center awarded to Pacific Rolling Mills, of San Francisco, at $85,433. Next three lowest bidders: United States Steel Products Co., $87,124; Jones & Laughlin Steel Co., $88,400, and Dyer Bros., San Francisco, $90,000.

San Diego, Cal.—School Bd. has authorized Theo. Kistner, Archt. of the Bd., to ask bids for completing Garfield School.

Woodlake, Cal.—Citizens voted $40,000 bonds to erect a school.

Pocatello, Idaho.—Bids desired May 25 by School Bd. for remodeling and constructing an addition to the high school; cost $70,000. Frank Paradice, Pocatello.

★*Items marked thus give the names of parties awarded contracts.*

Ft. William, Ont.—Bids desired May 20 by H. F. McNaughten, Secy. Dept. Pub. Wks. of Ontario, at Toronto, for erecting a Registry Office building here.

★**Hamilton, Ont.**—Contract for erecting the Mountain Hospital awarded by Bd. Control to Jas. Frid & Co., at $99,529.

Parry Sound, Ont.—Bids desired until June 8 by Duncan C. Scott, Deputy-Supt.-Genl. of Indian Affairs, Ottawa, for erecting Ryerson School at Parry Island. Alex. Logan, Indian Supt., Parry Sound.

Toronto, Ont. — New bids are desired May 14 by Property Com., Bd. Educ., for erecting the administration building on the College Ave. as the bids recently opened exceeded the $100,000 appropriated.

Victoria, B. C.—Bids reported desired until May 18 by Dept. Pub. Wks., Ottawa, Ont., to erect a Dominion observatory at Little Saanich Mountain, Victoria. Wm. Henderson, Resident Archt., Victoria.

PRIVATE BUILDINGS.

Items Arranged Geographically

Boston, Mass.—Ellis P. Snider will erect on Kneeland and Tyler Sts. an 8-story brick building.

Springfield, Mass.—Plans filed for the 3-story stone, cement and brick 58 x 69 ft. Memorial Hall to be erected by E. K. Wilcox, Post G. A. R., at 46 State St.; cost $48,000.

★Contract for erecting a fireproof 1-story 69x83 ft. brick garage for Robt. C. Sauer on Winter St. awarded to Fred T. Ley & Co., Inc., of Springfield.

Pawtucket, R. I.—Modern Constr. Co. intends remodeling the old railroad depot into a theater at a cost of $60,000.

Providence, R. I.—Plans being prepared for a brick or stone church to be erected for the Central Baptist Church. E. H. Rhodes, Chmn. Bldg. Com.

Bridgeport, Conn.—Brooklawn Country Club intends erecting a club house costing about $75,000. Frank T. Staples, Member of Bldg. Com.

Long Island City, L. I., N. Y.—J. R. Savage, of Jamaica, Ch. Engr., Long Island R.R. Co., writes that the company is not making any plans to erect a market house in Long Island City, as recently reported.

★**Mt. McGregor, N. Y.**—Contract awarded to Jacob & Youngs, 116 W. 32d St., New York, for erecting a 3½-story sanitarium for the Metropolitan Life Insurance Co.; cost $50,000. D. Everett Waid, 1 Madison Ave., New York, Archt.

New Rochelle, N. Y.—Thanhouser Film Corp. contemplates erecting a studio building in E. Main St., at a cost of $200,000.

New York, N. Y.—Plans being prepared by Peabody, Wilson & Brown, 389 Park Ave. for a 12-story store and loft building to be erected at 15 W. 36th St. of brick and Indian limestone for John I. Downey, Inc., 410 W. 34th St.; cost $200,000.

Plans about completed by A. F. A. Schmitt, 604 Courtland Ave., for a church to be erected at 138th St. and St. Ann's Ave. for St. Luke's R. C. Church; cost $100,000.

Arthur Loomis Harmon, 3 W. 29th St., engaged to prepare plans for the 16-story fireproof building to be erected at 7th Ave. and 49th St. for the 727 Seventh Ave. Co. (Geo. Backer, Pres., 56 W. 45th St.); cost $750,000.

Plans being prepared by Chas. B. Meyers, 1 Union Sq., for a 6-story apartment house to be erected at 307 W. 31st St. for the Business Men's Realty Co.; cost $50,000, and by Neville & Bagge, 105 W. 40th St., for a 5-story apartment house to be erected at Plimpton Ave. and 170th St. for R. A. Winter & Son, 1694 Clay Ave.; cost $50,000.

Plans prepared by Sommerfeld & Steckler, 31 Union Sq., for four 5-story apartment houses to be erected at 172d St. and Bway. for Max Raymond at a cost of $200,000; by H. Nordheim, 1087 Tremont Ave., for a 5-story brick tenement to be erected at Walker Ave. and Montgomery St. for Luigi Astorino, 6602 14th Ave., Brooklyn, cost $50,000; by John G. Kleinhenz, 1838 E. 12th St., Brooklyn, for 6-story garage to be erected at 236th St. and Kingsbridge Rd. at a cost of $75,000, for Ames Transfer Co.; by Harry Howell, 148th St. and 3d Ave., for two 5-story apartment houses on Southern Boule. and 172d St. for Frank Begrisch, 149th and Tinton Sts., cost about $100,000.

★Contract for erecting 9-story apartment house at 743 5th Ave. awarded to J. K. Turton, 101 Park Ave. for the Estate of Mary Mason Jones; cost $80,000. Hazzard & Erskine, 437 5th Ave., Archts.

Plans filed for following buildings: 12-story fireproof stores and tenements at 2400 Bway. for Eighty-Ninth Constr. Corp., cost $500,000, Geo. Fred. Pelham, Archt., 30 E. 42d St.; 5-story brick tenement at Vermilyea Ave. and Academy St. for Bendheim Constr. Co., cost $75,000, Geo. & Edw. Blum, Archts., 505 5th Ave.; 12-story fireproof stores and lofts at 223 W. 38th St. for Birwin Realty Corp., cost $400,000, Wm. H. Birkmire, Archt., 1133 Bway.; 2-story brick stores and office building at Webster Ave. and Fordham Rd. for Wedgewood Co., cost $60,000, And. J. Thomas, Archt., 2526 Webster Ave.; 5-story brick tenement at 172d St. and Boston Rd. for Cedar Constr. Co., cost $50,000, Tremont Architectural Co., Archt., 401 Tremont Ave.; 5-story brick tenement at Creston Ave. and Field Pl. for Creston Ave. Co., Inc., cost $60,000, Goldner & Goldberg, Archts., 391 E. 149th St.; 5-story brick tenement at University Ave. and 183d St. for Wm. Evans, cost $80,000, Kreymborg Architectural Co., Archts., 1029 E. 163d St.; four 5-story brick tenements at Morris Ave. and 177th St. for John W. Cornish Constr. Co., cost $180,000, Frank J. Schefcik, Archt., 4168 Park Ave.; two 5-story brick tenements at Southern Boule. and 172d St. for Cedar Constr. Co., cost $100,000, Tremont Architectural Co., Archt., 401 Tremont Ave.; three 5-story brick tenements at Decatur Ave. and 197th St. for Benenson Realty Co., cost $150,000, Tremont Architectural Co., Archts., 401 Tremont Ave.

St. James, L. I., N. Y.—Plans being prepared by Peabody, Wilson & Brown, 389 5th Ave., New York, for a 2½-story brick, marble and Indiana limestone residence to be erected for Lathrop Brown, at a cost of $100,000.

Yonkers, N. Y.—P. H. McGrath, 99 Morris St., contemplates erecting a 4 or 5-story apartment house on S. Bway., to cost $50,000.

Plans being prepared by E. C. Heald, 2 Hudson St., for a 3-story brick store and office building to be erected at New Main St. and Palisade Ave. for the Ethan Flagg Estate; cost $110,000.

★**Atlantic City, N. J.**—Contract awarded May 1 for general construction of addition to Strand Hotel (F. B. Off, Pres.) to Irwin & Leighton, 126 N. 12th St., Philadelphia, Pa. (cost not determined; plumbing awarded to Geo. B. Grey, 115 S. 16th St., Philadelphia, at $25,000.

Erie, Pa.—Fraternal Order of Moose intends erecting a 3-story brick and stone lodge building costing $50,000, according to plans prepared by J. W. Yard & Son, Penn Bldg.

Hazleton, Pa.—A 1-story brick and stone synagogue is to be erected at a cost of $35,000, according to plans prepared by Geo. Schroeder, Markle Bldg.

★**Johnstown, Pa.**—Contract for erecting church for Walnut Grove Church of the Brethren in the 17th Ward awarded to Lewis Keiper, Johnstown, at $30,230. Next three lowest bidders: Lincoln Overdorff, $33,875; S. A. Heffley, $34,140; and D. U. Swank, $34,517.

Scranton, Pa.—Reported plans being prepared for apartment house which Martin Maloney, Land Title Bldg., Philadelphia, intends erecting here at a cost of $200,000.

★**Wilkes-Barre, Pa.**—Contract for erecting the church, parish house and parsonage on S. Franklin St. for St. John's Lutheran Church awarded to Otto J. Behren & Sons, of Wilkes-Barre, at about $60,000.

★**Wilmington, Del.**—Contract for erecting 3-story hollow tile brick and plaster residence for Eugene du Pont awarded to Frank N. Goble, 1 E. 42d St., New York, at about $100,000. H. T. Lindeberg, Archt., 2 W. 47th St., New York.

Huntington, W. Va.—Site selected on which Fifth Ave. Baptist Church intends erecting $100,000 edifice.

★**Wheeling, W. Va.**—Contract awarded to J. W. Beltz & Sons Co., 18th and Eoff Sts., for erecting the Carmelite Home near Edgington Lane, estimated to cost $40,000. Fred Faris, of Wheeling, Archt.

Mobile, Ala.—J. M. Dewberry, Pres. Tidewater Security Co., promotors of Dauphin Island, have had plans prepared by Holabird & Roche, Chicago, Ill., for a hotel which they propose erecting on the Island for the Four Seasons Club; cost $250,000.

Louisville, Ky.—Plans being prepared for a 4-story fireproof building which Speed Realty Co. (W. S. Speed, Pres.) will erect on 4th and 3d Sts. Bids for construction, it is reported, will be asked about June 1.

★**Louisville, Ky.**—Contract for erecting the Deer Park Baptist Church at Bardstown Road and Maryland Ave. awarded to F. H. Miller; cost $25,000.

★**Bellefontaine, O.**—Contract for erecting Christian Church on E. Sandusky Ave. awarded to A. R. Filson & Co., of Bellefontaine, at $29,675.

Ironton, O.—Masons propose erecting a new building to replace temple destroyed by fire.

★**Newark, O.**—Contract awarded to Chas. T. Mercer, Zanesville, for erecting an arcade and market house near the public square costing $47,000.

Indianapolis, Ind.—Plans prepared by Elmer Dunlap, of Indianapolis, for an 11-story hotel to be erected at Washington St. and Senate Ave. for National Hotel Co.; cost approximately $250,000.

Chicago, Ill.—Ottenheimer, Stern & Reichert, 105 W. Monroe St., are architects for the 9-story and basement club house which the No. 4. B. P. O. Elks intends erecting at 174 W. Washington St., at a cost of $260,000.

Decatur, Ill.—C. A. Walt is interested in erecting a 6-story hotel and theater on site of Decatur and Arcade Hotels recently destroyed by fire; probable cost $190,000.

Peoria, Ill.—Peoria Society of Allied Arts reported interested in erecting a fine arts building to include a theater estimated to cost $200,000.

★**Sioux City, Ia.**—Contract awarded May 3 for erecting clubhouse for Elks to Coomer & Small, Sioux City, at $48,300. Beuttler & Arnold, Archts., Sioux City.

Elgin, Minn.—Bids reported desired until May 17 by Farmers' & Merchants' State Bank to erect a bank building. Hoffman & Mosse, Archts., Rochester.

★**Minneapolis, Minn.**—Contract for erecting 12-story hotel awarded to Evans Constr. Co., of Ft. Dodge, Ia., at about $125,000. C. E. Bell, of Minneapolis, Archts.

St. Paul, Minn.—Chas. and Jos. Friedman have leased the Willard Hotel at 10th and St. Peter Sts., and will remodel the hotel into an apartment house. About $75,000 will be spent in improvements.

Devils Lake, N. D.—Reported bids desired May 18 by Lodge of Elks for erecting a lodge building costing $30,000.

Madison, S. D.—J. H. Taileffer, of Madison, reported interested in erection of an opera house, lodge hall, and office building here, costing $60,000.

★**Walla Walla, Wash.**—Contract awarded to Moore Bros., 406 E. 37th St., Portland, Ore., for erecting a 10-stall brick roundhouse for the Oregon-Washington R.R. & Navigation Co., of Portland; cost $30,000.

Los Angeles, Cal.—Plans being prepared by Reid Bros., California Pacific Bldg., San Francisco, for a 10-story Class A building for H. Merritt.

Reported that plans are completed by Lyman H. Farwell, 617 Story Bldg., for a 4-story apartment house to be erected on Figueroa St. for E. D. Chapman; cost $140,000.

Plans reported being prepared by E. J. Borgmeyer, Stimson Bldg., for a 3-story brick school to be erected on Western Ave. for St. Brenden Parish. Rev. Forde, Pastor.

Salt Lake City, Utah.—Reported Saml. Newhouse contemplates erecting probably on State St. and Exchange Pl. a 28-story steel and concrete building. Only preliminary steps have been taken.

★**Toronto, Ont.**—Contract for the excavation for the $80,000 edifice to be erected for St. Vincent de Paul R. C. Church on Roncesvalles and Westminster Aves. has been awarded to John Collins of Toronto.

NEW INDUSTRIAL PLANTS.

See also "Private Buildings."
Items Arranged Geographically

★**Springfield, Mass.**—Contract for erecting a 3-story, brick, 51 x 88 ft. factory for Van Norman Machine Tool Co. awarded to L. S. Wood, Springfield.

Hartford, Conn.—Whitney Mfg. Co. is having plans prepared for a reinforced concrete 4-story 60 x 64 ft. addition to the factory.

★**Hartford, Conn.**—Contract for erecting 5-story, 206 x 50 ft. addition to plant of Hartford Machine Screw Co., on Capitol Ave., awarded to Robt. Porteus, of Hartford, at about $75,000. Burton S. Clark, Archt.

★**Buffalo, N. Y.**—Contract awarded to Turner Constr. Co., 11 Bway., New York, N. Y., for erecting a reinforced concrete, brick and terra cotta service station and salesroom building for the Ford Motor Car Co. at Main, Jewett and Rodney Sts. A. Kahn and E. Wilby, 58 W. Lafayette Bldg., Detroit, Mich., Archts.

Gloversville, N. Y. — Reported glove plant of Bachmar Hall Co., recently destroyed by fire, is to be rebuilt.

Hilton, N. Y.—Hilton Supply & Storage Co. contemplates erecting a 4-story reinforced concrete cold storage building.

★**Long Island City, L. I., N. Y.**—Contract awarded to Turner Constr. Co., 11 Bway., New York, for erecting a reinforced concrete manufacturing building on Annabel and Gossman Aves., to be 235 x 265 ft., part 2 and part 1 story. Timmins & Chapman, 315 5th Ave., New York, Archts. and Engrs.

Rochester, N. Y.—Plans being prepared by Robt. J. Reidpath & Son, Builders' Exchange, Buffalo, for a 3-story and basement, 100 x 200 ft., ice cream plant to be erected for the Rochester Ice Cream Co.

★Contract for erecting addition, 60 x 66 ft., to the plant of the Erdle Perforating Co., 171 York St., awarded to Alex. Shumway & Utz Co., of Rochester.

Syracuse, N. Y.—Reported bids desired by Gordon A. Wright, Dillage Bldg., Archt., for erecting a 3-story and basement brick and reinforced 80 x 86 ft. addition to the plant of the H. H. Franklin Mfg. Co., on Marcellus and S. Geddes Sts.; cost $10,000.

★**Bayonne, N. J.**—Contract awarded to Turner Constr. Co., 11 Bway., New York, for erecting 6 manufacturing buildings for the Vacuum Oil Co., of Bayonne; all to be of reinforced concrete.

★**Camden, N. J.**—Contract awarded to Irwin & Leighton, of Philadelphia, Pa., for erecting a 6-story reinforced concrete and brick, 105 x 193 ft. cabinet factory for the Victor Talking Machine Co. Ballinger & Perrott, Archts., Philadelphia, Pa.

Newark, N. J.—Reported bids desired by Frank Hill, Engr., care of Jas. A. Bannister, Owner, 185 Washington St., for erecting a 4-story reinforced concrete factory to be erected at 370 Orange St.; cost about $125,000.

Canonsburg, Pa.—Standard Tin Plate Co. reported considering enlarging the plant.

★**Eddystone, Pa.**—Contract awarded to Seeds & Derham, Philadelphia, for erecting a 1-story, 900 x 1200 ft., concrete and hollow tile factory for the Baldwin Locomotive Wks.; cost $500,000.

Erie, Pa.—Plans about completed by Armin Schotte, Erie Trust Bldg., for a 1-story brick 200 x 250 ft. factory, costing $75,000, which is to be erected by Erie Stove & Mfg. Co.

Hazleton, Pa.—Plans prepared by W. E. S. Dyer, Philadelphia, for a 2-story brick and concrete slow burning 50 x 100 ft. building for the Hazleton Bleach Wks. Mechanical equipment consisting of boilers, generators, engines, sprinkler system, etc., will be installed.

★**Baltimore, Md.**—Contract for erecting a 4-story brick factory, 90 x 140 ft., at 2339 Boston St., for Canton Co., awarded to Burns & Russell Co., at about $40,000. Building is to be occupied by W. W. Boyer & Co.,

Richwood, W. Va.—The W. F. Mosser Co. intends erecting buildings for an extract plant near the tanneries here. Main building to be reinforced concrete, 100 x 300 ft., and cost $500,000.

Charlotte, N. C.—R. E. Lee and Jas. A. Jones, of Laurinburg, propose erecting a mill for spinning yarn from low-grade cotton; about 15,000 spindles and accompanying machinery to be installed, and cost is estimated at $200,000.

New Orleans, La.—Preliminary plans have been prepared by Bacon, Ford & Davis, Engrs. of Dock Bd., for a publicly owned grain elevator which the board contemplates erecting in connection with the new cotton warehouse now in course of construction.

Akron, O.—B. F. Goodrich Co. reported to be planning erecting a building north of present factory; cost about $800,000. Osborn Eng. Co., of Cleveland, Engrs.

★**Youngstown, O.**—Contract awarded to H. Koppers Co., 5 S. Wabash Ave., Chicago, Ill., for erecting for Youngstown Sheet & Tube Co. a by-product coke plant consisting of 204 coke ovens with an average capacity of 2240 tons; estimated cost $3,000,000. It is reported that an additional $2,000,000 is to be spent by this company in mill extensions.

Evansville, Ind.—Blount Plow Wks. (Walter E. Blount, Gen. Mgr.) proposes erecting a plant here. Savannah Eng. & Constr. Co., of Savannah, Ga. (Wm. M. Torrance, Ch. Engr., Savannah Bank & Trust Bldg.), will be engineering and construction agents for carrying out investigations, design and construction of work under direction of Walter E. Blount, Gen. Mgr. Investigations now being made and tentative plans being prepared.

Milwaukee, Wis.—A permit has been issued to the Ford Motor Co. to erect at Farwell and Prospect Aves. and Kinilworth Pl. an assembly plant costing $250,000. Building to be 5-story concrete and steel, 300 x 120 ft.

Seattle, Wash.—Port of Seattle (J. B. West, Ch. Engr.) will prepare plans for refrigerating and cooling machinery to be installed in fruit storage warehouse, to cost about $100,000.

Panama.—Bids desired until May 27 by Maj. F. C. Boggs, Corps Engrs., U. S. A., Genl. Purchasing Officer, Panama Canal, Washington, D. C., for Cir. 924—Ice and refrigerating plant, motor-driven lathes, sheet brass, valves, etc.

MISCELLANEOUS.

Items Arranged Geographically
See also "Hydraulic Construction and River Improvements."

El. Rys.—Brooklyn, N. Y.—Bids desired May 28 by Public Service Comn., 154 Nassau St., New York, N. Y., for construction and station finish of the 4th Ave. subway, Brooklyn, a part of the Bway.-4th Ave. Rapid Transit R. R. from center of Flatbush Ave. extension to a point on 4th Ave., about 150 ft. south of 42d St.

Cranes—Norfolk, Va.—Bids desired until June 12 at Bureau Yards and Docks, Navy Dept., Washington, D. C. (H. R. Stanford, Ch.), for Spec. 2160—For shipbuilding cranes at Navy Yard, Norfolk.

Subway, Etc.—Miami, Fla.—Estimates are wanted by J. H. Tatum, of Miami, on a subway 30 ft. wide, 40 ft. extreme depth, 15 ft. from base of tunnel to top

★*Items marked thus give the names of parties awarded contracts.*

of arch, 1200 ft. in length; also for excavating 10,000 yd. of rock for wall 2500 ft. long and 315,000 yd. brick and sand fill.

★**Steel Doors, Etc., for Warehouse—New Orleans, La.** — Following are the bids opened Apr. 28 by Bd. Port Comrs. (Ernest W. Loeb, Pres.) for fire doors and steel rolling doors, etc., for warehouse under construction on east bank of Mississippi River near Valence St. Ford, Bacon & Davis, Engrs., 921 Canal St.: Kinnean Mfg. Co., Columbus, O., $86,430 (awarded contract; Jas. G. Wilson Cor., Norfolk, Va., $87,491; American Sheet Metal Wks., New Orleans, $85,800.

Chimney and foundations for warehouse—New Orleans, La.—Bids desired May 19 by Bd. Comrs., Port New Orleans, for constructing a tapering reinforced concrete chimney and foundation for the cotton warehouse and terminal on Mississippi River, between Valence and Soniat Sts., advertised in Engineering Record. Ford, Bacon & Davis, Engrs., 921 Canal St., New Orleans.

Playground—Cincinnati, O.—A. Lincoln Fechheimer, Lyric Theater Bldg., has been engaged by Park Bd. to make plans for a playground on 3d St., near Martin, which will include swimming pools; cost about $45,000.

Reinforcing Steel—Chicago, Ill.—Bids desired until May 19 by W. R. Moorhouse, Comr. Pub. Wks., for furnishing 105 tons reinforcing steel, f.o.b. cars of 95th St. incinerator and Mayfair pumping station.

Elevator and Trench Excavator—Chicago, Ill.—Bids desired until May 22 by W. R. Moorhouse, Comr. Pub. Wks., for one direct connected electric freight elevator with auxiliaries, etc., in Lake View Pumping Station, also same time and place separate bids for one trench excavating machine complete at Pipe Yard "A," Avers and Wabansia Aves.

Cement—Denver, Colo.—Bids desired until May 25 by U. S. Reclamation Service, Denver (A. P. Davis, Ch. Engr.), for furnishing 150,000 bbls. Portland cement.

Terminal and Tunnel—Seattle, Wash.—Local press reports state that an application has been made to City Council by A. P. Gillies, Engr., for a franchise for the underground portion of the proposed terminal and tunnel project, which it is reported will cost complete $50,000,000. The underground portion will cost about $15,000,000.

★**Derrick and Hoist—Seattle, Wash.**—Contract awarded by Port of Seattle Comn. Apr. 26 for a derrick to Westerman Iron Works, Seattle, at $7,100. Lowest bid for hoist submitted by Hallidie Machinery Co., Seattle (not yet let).

Cranes—Seattle, Wash.—Bids reported ported desired until May 26 by Port of Seattle Comn. for furnishing and installing 2 hand-propelled traveling cranes for grain chutes and accessories for same complete for grain elevator, East Waterway Terminal Improvement.

Elevators — Seattle, Wash.—Bids reported desired until June 1 by County Comrs. (Bryon Phelps, Clk.) for furnishing, delivering and installing complete in new County Court House, 3d Ave. and James St., electric passenger elevators of the drum and traction type. Separate bids desired for 4, 6 and 8 elevators. A. Warren Gould, Archt., American Bank Bldg.

Steam Plant—Seattle, Wash.—A. H. Dimock, City Engr., in a report to the Mayor and City Council, has recommended that immediate steps be taken toward construction of an additional unit to the Municipal Steam Auxiliary power plant at Lake Union, to cost $350,000.

Refrigerating and electric light plant—Ft. Huachuca, Ariz.—Bids desired until June 9 by Constructing Q. M., Ft. Huachuca, for furnishing material and constructing an electric light and refrigerating plant and installing interior and exterior wiring system, advertised in Engineering Record.

Sheet Brass, Etc.—Panama.—See "Industrial Plants."

Cement Roofing Tile—Panama.—Bids desired May 28 by Maj. F. C. Boggs, Corps Engrs., U. S. A. General Purchasing Officer, The Panama Canal, Washington, D. C. for cement roofing tile. Circular 925, advertised in Engineering Record.

Proposals

For Proposals Advertised see Pages 44, 45 and 46.

WATERWORKS.

Bids Close — See Eng. Record.

May 17. Road at Reservoir, Hartford, Conn. ..... May 1
Adv. May 1 to 15.
May 17. Improv. to Water Works, Bluffton, O. ..... May 1
Adv. May 1.
May 17. Reservoir, Salem, Mass.. May 8
Adv. May 8.
May 17. System, Area, Ill..... May 15
Adv. May 15.
May 18. Mains, Rocky River, O.. May 1
May 18. Improv., Paris, Ill..... May 1
May 18. Mains, Etc., Belzoni, Miss. ..... May 8
May 18. System, Bloomington, Wis. ..... May 15
May 18. Pipe, Berwyn, Ill..... May 15
May 20. Pipe, Etc., Panama..... May 8
May 20. Pumps, Cleveland, O..... May 15
May 20. Dam, Reservoir, Etc., Somerset, Pa. ..... May 15
May 21. Pipe Drains for Filtration Plant, Cleveland, O. May 8
May 24. System, Colo, Ia..... May 8
Adv. May 8.
May 24. Water Wks., Ceresco, Neb. ..... May 8
May 24. Pipe, Prescott, Wash.... May 15
May 25. C.-I. Pipe, Philadelphia, Pa. ..... May 1
Adv. May 1, 8.
May 25. Water Wks. Plant, Onslow, Ia. ..... May 8
May 26. Improvements, Albion, N. Y. ..... May 8
Adv. May 8.
May 25. Atlantic Highlands, N. J. May 15
Adv. May 15.
May 28. Well, Aurora, Ill..... May 15
May 28. Extension, Frederick, Md. May 15
Adv. May 15.
May 29. System at Cemetery, Crow Agency, Mont..... May 15
Adv. May 15.
Jun. 1. Tank and Tower, Cresco, Ia. ..... May 15
Jun. 1. Filter Plant, Ridgway, Pa. ..... May 15
Adv. May 15.
Jun. 2. Improv. System, Caruthersville, Mo. ..... May 15
Adv. May 15.
Jun. 2. Contract 9, Nepaug Reservoir, Hartford, Conn.. May 15
Adv. May 15.
Jun. 5. Improvements to Water Wks., Plant City, Fla.. May 8
Adv. May 8, 15.

SEWERAGE AND SEWAGE DISPOSAL.

May 18. Toledo, O. ..... May 8
May 18. Hartley, Ia. ..... May 8
May 18. Boston, Mass. ..... May 15
May 18. Green Bay, Wis..... May 15
May 18. Glencoe, Ill. ..... May 8
May 19. Fitchburg, Mass. ..... May 8
May 20. Cleveland, O. ..... May 15
May 20. Bozeman, Mont. ..... May 15
May 21. Oconomowoc, Wis. ..... May 8
May 21. Kenosha, Wis. ..... May 15
Adv. May 15.
May 21. Cincinnati, O. ..... May 15
May 24. Ebensburg, Pa. ..... May 8
Adv. May 8.
May 24. Greenwich, Conn. ..... May 8
Adv. May 8.
May 24. Avon, N. Y..... May 15
Adv. May 15.
May 25. Wilkes-Barre, Pa. ..... Apr. 17
Adv. Apr. 17, May 1, 15.
May 25. Easton, Md. ..... May 1
Adv. May 1, 15.
May 25. Rittman, O. ..... May 8
(2 Prop.) Adv. May 8, 15.
May 25. Tripoli, Ia. ..... May 15
May 26. Brooklyn, N. Y..... May 15
Jun. 2. Caruthersville, Mo. ..... May 15
Adv. May 15.
Jun. 9. Struthers, O. ..... May 8
Jun. 7. Dowington, Ia. ..... May 15
Adv. May 15.

BRIDGES.

May 18. Illinois ..... May 15
May 19. Lisbon, N. D..... May 8
May 19. Fargo, N. D..... May 15
May 20. Manhattan, Kan. ..... May 8
May 20. Nebraska City, Neb..... May 8
May 20. Illinois. ..... May 15
May 21. Rome, Ga. ..... May 1
May 21. North Platte, Neb..... May 1
May 21. Wayne, Neb. ..... May 8
May 21. Reading, Pa. ..... May 8
May 21. Michigan ..... May 8
May 21. Bedford City, Va..... May 15
May 22. Le Roy, N. Y..... May 8
Adv. May 8.
May 22. Jay, N. Y..... May 15
May 24. Montesano, Wash. ..... May 15
May 24. California ..... May 15
May 25. Indiana, Pa. ..... May 15
May 25. Henderson, Ky. ..... May 15
May 28. Canton, N. Y..... May 15
May 28. Canton, O..... May 15
May 28. Eastmanville, Mich. ..... May 15
May 31. Tumwater, Wash. ..... May 15
Jun. 1. Lake Charles, La..... May 15
Adv. May 15.
Jun. 1. Cincinnati, O. ..... May 15
Jun. 4. Columbus, O. ..... May 15
Jun. 7. Louisiana ..... May 15

PAVING AND ROADS.

May 17. Hartford, Conn. ..... May 1
Adv. May 1, 8.
May 17. Danville, Ill. ..... May 8
Adv. May 8.
May 18. Columbus, O. ..... May 1
May 18. Albany, N. Y..... May 1
Adv. May 1 to 15.
May 18. Charleston, S. C..... May 1
Adv. May 1, 8.
May 18. Toledo, O. ..... May 8
May 18. Columbus, O. ..... May 8
May 18. Storm Lake, Ia..... May 8
May 18. New Haven, Conn..... May 15
May 18. Wauseon, O. ..... May 15
May 18. Lima, O. ..... May 15
May 18. Montreal, Que. ..... May 15
May 18. Springfield, Mo. ..... May 15
May 18. Massachusetts ..... May 15
May 19. Bexley, O. ..... May 8
May 19. Maine ..... May 8
Adv. May 8, 15

Close. Bids — Record. See Eng.

May 19. Baltimore, Md. ..... May 8
May 19. Cleveland, O. ..... May 15
May 19. Alexandria, La. ..... May 15
May 19. Brooklyn, N. Y..... May 15
May 20. Mansfield, O. ..... May 1
May 20. Tacoma, Wash. ..... May 8
May 20. Illinois ..... May 8
May 20. Richmond, Ind. ..... May 15
May 20. Sheridan, Ark. ..... May 15
May 21. Washington, D. C..... May 1
Adv. May 1. (2 Prop.)
May 21. Albany, N. Y..... May 1
Adv. May 1 to 15.
May 21. Spokane, Wash. ..... May 8
May 21. Chicago, Ill. ..... May 15
May 21. Buffalo, N. Y..... May 15
May 21. Gregory, Tex. ..... May 15
May 21. Cedar Rapids, Ia. ..... May 15
May 21. Great Bend, Kan..... May 15
May 22. Huntsville, Ala. ..... May 8
May 22. Lake Geneva, Wis..... May 8
May 24. Washington ..... May 8
May 24. Seattle, Wash. ..... May 8
May 24. Everett, Wash. ..... May 8
May 24. California, ... May 8
May 24. Portsmouth, O. ..... May 15
May 24. Montesano, Wash. ..... May 15
May 24. Kountze, Tex. ..... May 15
May 24. Swanton, O. ..... May 15
May 25. Tuscaloosa, Ala. ..... May 8
May 25. Melmore, O. ..... May 15
May 25. Ridgefield Park, N. J.... May 15
Adv. May 15.
May 25. Seattle, Wash. ..... May 15
May 25. Painesville, O. ..... May 15
May 25. Santa Ana, Cal..... May 15
May 26. Illinois. ..... May 15
May 28. Hackensack, N. J..... May 1
May 28. Moundsville, W. Va..... May 15
May 28. Mt. Gilead, O. ..... May 15
May 29. Fall City, Neb..... May 15
May 31. Selma, Ala. ..... May 8
May 31. Clarksville, Tex. ..... May 15
Adv. May 15.
Jun. 1. Albany, N. Y..... May 15
Adv. May 15.
Jun. 1. Washington ..... May 15
Jun. 1. Brainerd, Minn. ..... May 15
Jun. 1. California. ..... May 15
Jun. 3. Grinnell, Ia. ..... Apr. 17
Jun. 4. Columbus, O. ..... May 15
Jun. 7. Ellensburg, Wash. ..... May 8
Jun. 7. Hazlehurst, Miss. ..... May 1
Jun. 7. Arlington, O. ..... May 15
Jun. 8. Mt. Vernon, Wash..... May 15
Jun. 9. Struthers, O. ..... May 8

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

May 18. Wharf, Dunkirk, N. Y... May 1
May 18. Lock Gates for Dams, Wheeling, W. Va..... May 1
Adv. May 1, 8.
May 18. Dredging and Seawall, Ellis Island, N. Y..... May 8
2 Props. Adv. May 8, 15.
May 19. Breakwater, Detroit, Mich. ..... Apr. 17
Adv. April 17, 24, May 8, 15.
May 19. Hull for Dredge, Louisville, Ky. ..... Apr. 24
Adv. Apr. 24 to May 15.
May 19. Irrigation Wk., Payson City, Utah ..... Apr. 24
May 19. Steel Pile Bulkhead, Etc., Cleveland, O. ..... May 8
May 20. Breakwater, Marblehead, O. ..... Apr. 24
Adv. Apr. 24 and May 1.
May 20. Crib Work, Detroit, Mich. Apr. 17
Adv. Apr. 17, 24, May 8, 15.
May 20. Dike, Kansas City, Mo.. Apr. 24
(2 Prop.)
Adv. Apr. 24, to May 15.
May 20. Dredging, Toronto, Ont. May 15
May 22. Ditch, Dansville, Ill..... May 8
May 22. Improv. Wharf, New London, Conn. ..... May 15
May 24. Dike, Kansas City, Mo.. Apr. 24
(2 Prop.)
Adv. Apr. 24, to May 15.
May 24. Lock, Detroit, Mich..... Apr. 17
Adv. Apr. 17, 24.
May 25. Dredging, Portland, Me.. May 15
Adv. May 15.
May 25. Drainage, Bellingham, Wash. ..... May 15
May 26. Levee Wk., Memphis, Tenn. ..... May 1
Adv. May 1 to 15.
May 27. Dredging, New Westminster, B. C..... May 15
May 28. Dredge, New York, N. Y. May 1
Adv. May 1 to 15.
May 29. Seawall, New York, N. Y. May 15
Adv. May 15.
Jun. 1. Drainage Ditches, Bartow, Fla. ..... May 1
Adv. May 1, 8.
Jun. 2. Water Turbines, Etc., Wheeling, W. Va..... May 8
Adv. May 8, 15.
Jun. 4. Mitering Guard Gates, Louisville, Ky. ..... May 8
Adv. May 8, 15.
Jun. 15. Excav. for Earth and Rock, Detroit, Mich.... May 8
Adv. May 8, 15.

PUBLIC BUILDINGS AND SCHOOLS.

May 18. Laurel, Miss. ..... Apr. 17
May 18. Etna, O. ..... May 1
May 18. Columbus, O. ..... May 1
May 18. Chico, Cal. ..... May 8
May 18. Grand Mere, Que..... May 8
May 18. Los Angeles, Cal..... May 8
May 18. Redondo Beach, Cal. .... May 8
May 18. Victoria, B. C..... May 15
May 18. Tarentum, Pa. ..... May 15
May 18. Albany, N. Y..... May 15
Adv. May 15.
May 18. Rikers Island, N. Y..... May 15

Bids Close — See Eng. Record.

May 19. Springfield, O. ..... May 1
May 19. Salem, Ore. ..... May 15
May 19. Chicago, Ill. ..... May 15
May 20. Pendleton, Ore. ..... May 1
May 20. Clay Center, Kan..... May 15
May 20. Des Moines, Ia..... May 15
May 20. Wichita, Kan. ..... May 15
May 20. Nahant, Mass. ..... May 15
May 20. Rusk, Tex. ..... May 15
May 20. Ft. Williams, Ont..... May 15
May 20. Los Angeles, Cal..... May 15
May 20. Miamitown, O. ..... May 15
May 20. Collingswood, N. J..... May 15
May 20. Salem, Ore. ..... May 15
May 21. Pittsburgh, Pa. ..... Apr. 24
Adv. Apr. 24, to May 15.
May 21. Westerville, O. ..... May 1
May 21. Cleveland, O. ..... May 15
May 21. Haskins, O. ..... May 15
May 21. Winchester, Ind. ..... May 15
May 22. New Madrid, Mo..... May 8
May 24. Independence, Ia. ..... May 1
May 24. Front Royal, Va..... May 1
Adv. May 1 to 15.
May 24. Havre, Mont. ..... May 1
May 24. Atlanta, Ga. ..... May 8
May 24. Paterson, N. J..... May 8
May 24. Oklahoma City, Okla.... May 15
May 24. Rolette, N. D..... May 15
May 24. Seattle, Wash. ..... May 15
May 25. Calgary, Alta..... May 1
May 25. Lakewood, O. ..... May 1
May 25. Redwood Falls, Minn.... May 1
May 25. Arcadia, Fla. ..... May 8
May 25. Irwin, Pa..... May 8
May 25. Delaware, O. ..... May 15
May 25. Pocatello, Idaho ..... May 15
May 26. La Salle, Ill..... Apr. 24
May 26. Ft. Hancock, N. J..... May 1
Adv. May 1, 8.
May 26. Central Islip, N. Y..... May 15
Adv. May 15.
May 27. Milwaukee, Wis. ..... May 8
Adv. May 8, 15.
May 27. South Bethlehem, Pa.... May 8
May 27. Ripley, O. ..... May 8
May 27. Ashville, O. ..... May 8
May 27. Vinton, Ia. ..... May 15
May 27. North Brothers Island, N. Y. ..... May 15
May 27. Seaman, O. ..... May 15
May 28. Ft. Terry, N. Y..... May 1
Adv. May 1 to 15.
May 28. Madison, S. D..... May 8
May 28. Ghent, Minn. ..... May 15
May 28. Alliance, O. ..... May 15
May 29. Bremerton, Wash. ..... May 8
May 31. Boyd, Minn. ..... May 15
May 31. Quasqueton, Ia. ..... May 15
Jun. 1. Harrisburg, Pa. ..... Mar. 13
Jun. 1. Urbana, Ill. ..... May 8
Jun. 1. Cleveland, O. ..... May 8
Jun. 1. Huntsville, Tex. ..... May 15
Jun. 1. Syracuse, N. Y..... May 15
Jun. 1. Danvers, Mass. ..... May 15
Jun. 1. Flora, Ind. ..... May 15
Jun. 2. Longview, Tex. ..... May 1
Jun. 3. Chillicothe, Mo. ..... Apr. 24
Jun. 3. Corning, O. ..... May 8
Jun. 3. Chillicothe, O. ..... May 15
Jun. 7. Oklahoma City, Okla.... May 8
Jun. 8. Reading, Pa. ..... May 8
Jun. 8. Louisville, Ky. ..... May 15
Jun. 8. Parry Sound, Ont..... May 15
Jun. 9. Detroit, Mich. ..... May 15
Adv. May 15.
Jun. 14. Marlin, Tex. ..... May 8
Jun. 14. Tampa, Fla. ..... May 8
Adv. May 8, 15.
Jun. 15. Primghar, Ia. ..... May 15
Jun. 21. Cuero, Tex. ..... May 15
——— Greenville, S. C..... May 1
Adv. May 1.

PRIVATE BUILDINGS.

May 18. Devils Lake, N. D..... May 15
May 20. Belleville, Ont. ..... May 8
May 25. Viola, Wis. ..... May 8

MISCELLANEOUS.

May 18. El. Ry., Sec. 2, Route 49, Brooklyn, N. Y..... May 1
Adv. May 1, 8.
May 18. Excav. Test Pits and Driving Piles, Ridgefield Park, N. J..... May 8
Adv. May 8, 15.
May 19. Chimney and Foundation for Warehouse, New Orleans, La. ..... May 15
Adv. May 15.
May 19. Reinforcing steel, Chicago, Ill..... May 15
May 20. Runway, Cleveland, O.... May 15
May 21. Booms, Concrete Mixers, Etc., Memphis, Tenn... May 8
Adv. May 8 to 15.
May 21. Garbage Disposal, New York, N. Y..... May 15
May 22. Elevator and Trench Excavator, Chicago, Ill.... May 15
May 25. Cement, Denver, Colo... May 15
May 26. Lighters, Savannah, Ga.. May 1
Adv. May 1 to 15.
May 26. Stone and Cement, Wilmington, N. C..... May 1
Adv. May 1 to 15.
May 26. Cranes, Seattle, Wash... May 15
May 27. Sheet Brass, Etc., Panama ..... May 15
May 28. Cement Roofing Tile, Panama ..... May 15
Adv. May 15.
May 28. El. Rys., Brooklyn, N. Y. May 15
May 29. Steel Towers. Point Isabel, Tex. ..... May 1
Jun. 1. Elevators, Seattle, Wash. May 15
Jun. 3. Lighting Fixtures in Pub. Bldg., New York, N. Y. May 8
Adv. May 8, 15.
Jun. 9. Refrigerating and Electric Light Plants, Ft. Huachuca, Ariz. ..... May 15
Adv. May 15.
Jun. 12. Cranes, Norfolk, Va..... May 15

★*Items marked thus give the names of parties awarded contracts.*

Elmira, $12,272; John Johnson Const. Co., Buffalo, $12,698.

No. 746, Cayuga County, 7.96 miles: Flood & Van Wirt Co., Hudson Falls, $38,322; Paddleford & King, Sherburne, $38,972; Brayer Brothers, Auburn, $40,352; Michael Murphy, Rochester, $41,267.

No. 749, Franklin County, 8.58 miles: W. T. Thayer & Co., Chateaugay, $3,465; Richard Hopkins, Troy, $3,702; John F. Lewis, Albany, $3,795; I. B. Contr. Cor., New York, $3,986.

No. 754, Franklin County, 2.07 miles: (Only bidder) W. T. Thayer & Co., Chateaugay, $9,938.

No. 762, Fulton County, 19.86 miles: Dale Engin. Co., Utica, $7,482; Clarence Welch & Co., Gloversville, $7,984; John P. Dugan & Co., Amsterdam, $8,085; W. L. Lawton, Glens Falls, $8,213.

No. 757, Genesee-Livingston and Monroe Counties, 41.10 miles: Sweeney & Boland, Rochester, $6,670; Headley Good Roads Co., Philadelphia, Pa., $6,700; Dale Engineering Co., Utica, $7,023; E. P. Strowger, Pittsford, $7,100.

No. 732, Hamilton County, 14.49 miles: Dale Eng. Co., Utica, $5,152; John P. Dugan & Co., Amsterdam, $5,575; Clarence Welsh & Co., Gloversville, $5,575; Rich. Hopkins, Troy, $5,595.

No. 745, Livingston County, 15.69 miles: McCarthy & Wall, Mt. Morris, $4,055; Ribstine-Holter Co., Inc., Rochester, $4,146; I. B. Contr. Cor., New York, $4,357.

No. 752, Livingston and Ontario Counties, 17.75 miles: Headley Good Roads Co., Philadelphia, Pa., $3,551; Ribstine-Holter Co., Inc., Rochester, $3,808; I. B. Contg. Cor., New York, $3,833; Clarence E. Walker, Troy, $3,864.

No. 734, Madison County, 29.71 miles: Harry W. Roberts Co., Utica, $10,870; Defiance Corporation, Ticonderoga, $11,570; Nash & Griffin, Norwich, $12,538; Dana W. Robbins, Inc., New York, $12,559.

No. 729, Montgomery County, 25.27 miles: Harry W. Roberts & Co., Utica, $8,770; John P. Dugan & Co., Amsterdam, $9,697; W. L. Lawton, Glens Falls, $10,560; Dana W. Robbins, Inc., New York, $10,627.

No. 763, Oneida, Madison, Otsego and Herkimer Counties, 32.44 miles: Harry W. Roberts & Co., Utica, $12,280; Rich. Hopkins, Troy, $14,929; Geo. Holler, Albany, $14,941; I. B. Contr. Cor., New York, $15,406.

No. 731, Oneida & Herkimer Counties, 31.91 miles: Dale Eng. Co., Utica, $10,947; Dana W. Robbins, Inc., New York City, $11,827; Rich. Hopkins, Troy, $12,801; DeBarber & Hill, Fulton, $13,142.

No. 730, Oneida County, 30.30 miles: Dale Eng. Co., Utica, $12,007; Dana W. Robbins, Inc., New York City, $12,385; John A. Jova, Inc., Newburgh, $13,033; DeBarber & Hill, Fulton, $13,216.

No. 756, Ontario County, 3.74 miles: Bert Warren & J. J. Gleason, Honeoye Falls, $13,395; Connors & Gallivan, Elmira, $13,994; Ribstine-Holter Co., Inc., Rochester, $14,126; John Johnson Constr. Co., Buffalo, $15,102.

No. 755, Orange County, 2.20 miles: Schunnemunk Constr. Co., Highland Mills, $11,483; Paul Gsanger, Monsey, $11,978.

No. 759, Orange County, 6.83 miles: John A. Jova, Inc., Newburgh, $5,343; Paul Gsanger, Monsey, $5,444; I. B. Contg. Cor., New York, $6,045; Schunnemunk Contr. Co., Highland Mills, $6,845.

No. 641, Monroe and Orleans Counties, 23.63 miles: Thos. Hucknall & Co., Albion, $4,694; Sweeney & Boland, Rochester, $5,341; Rhodey & Clawson, Albion, $5,572; Headley Good Roads Co., Philadelphia, Pa., $5,643.

No. 751, Oswego County, 7 miles: Thos. Hucknall & Co., Albion, $2,251; Pathfinder Cons. Co., Inc., Fulton, $2,447.

No. 747, Oswego County, 10.75 miles: Thos. Hucknall & Co., Albion, N. Y., $3,766; Fred D. Dutcher, Fulton, N. Y., $4,233.

No. 721, Rensselaer County, 0.41 miles: Gleason & Davitt, Albany, N. Y., $2,821; County Constr. Co., Troy, N. Y., $2,922; I. B. Contr. Cor., New York City, $3,072; Belmar Contr. Co., Inc., Troy, N. Y., $3,207.

No. 713, Seneca County, 7.05 miles: (Only bidder) Pathfinder Const. Co., Inc., Fulton, $2,889.

No. 758, Steuben County, 3.94 miles: Kennedy Constr. Co., Albany, $22,000; Bradley & Nolan, Corning, $22,425; Atlantic Const. Co., Atlanta, $22,859; John Johnson Const. Co., Buffalo, $25,975.

No. 541, Tompkins County, 3.04 miles: Pat'k D. Conley, Ithaca, $15,080; J. H. Weidman, Syracuse, $18,408; McGreevey, McGuigan & Baum, Elmira, $18,408; Hasard & Dater, Groton, $18,899.

No. 753, Washington County, 1.85 miles: Wm. J. Morrissey, Saratoga, N. Y., $11,332; Wm. Sherrill, Hudson Falls, N. Y., $11,972; Gleason & Davitt, Albany, N. Y., $12,614; W. L. Lawton, Glens Falls, N. Y., $12,997.

No. 723, Wyoming County, 13.42 miles: (Only bidder) I. B. Contr. Cor., New York City, $4,354.

No. 748, Yates County, 2 miles: McGreevey, McGuigan & Baum Constr. Co., Elmira, $1,409; John W. Gurnett, Watkins, $1,468.

Following are lowest bids opened same time by State Highway Comn. on broken stone contracts:

Stone Contract No. 68, Genesee County, 400 tons: F. H. Wells, Corfu, $871

No. 67, Livingston County, 1000 tons: McCarthy & Wall, Mt. Morris, $2,410.

No. 61, Monroe County, 800 tons: Frank W. Treusdale, Barnard, $1,884.

No. 62, Monroe County, 960 tons: Crouch Bros., Rochester, $1,890.

No. 63, Monroe County, 760 tons: Crouch Bros., Rochester, $2,010.

No. 64, Monroe County, 840 tons: Ribstine-Holter Co., Inc., Rochester, $1,890.

No. 69, Ontario County, 960 tons: Ribstine-Holter Co., Inc., Rochester, $2,268.

No. 65, Orleans County, 480 tons: Clarence E. Walker, Troy, $1,236.

No. 65, Wyoming County, 280 tons: F. H. Wells, Corfu, $646.

Albany, N. Y.—Bids desired June 4 by State Comn. Highways, 55 Lancaster St., Albany (Edwin Duffey, Comr.), for construction and repair of highways in various counties, advertised in Engineering Record.

★**Canastota, N. Y.**—Contract awarded May 12 for 7,216 sq. yds. Mack block paving to Dewhurst & DeVaul, Utica, at $15,192. E. B. Roberts, City Clk.

★**Little Falls, N. Y.**—Contract for paving Garden St. awarded by Bd. Pub. Wks. to Warren Bros., Boston, Mass., at $17,479.

Little Falls, N. Y.—Following bids opened by Bd. Pub. Wks. for paving Garden St.: Warren Bros. Co., Boston, Mass., bitulithic, $17,479; R. D. Cooper, bitulithic, $19,076 and bituminous macadam, $15,450.

★**Newburgh, N. Y.**—Contract for paving with asphalt block Newburgh and Cochecton turnpike awarded by City Council to Jas. L. Kehoe, at $32,357.

New York, N. Y.—Bids desired until May 24 by Marcus M. Marks, Pres. Boro. Manhattan, for regulating and repaving with sheet asphalt portions of Dutch, W. 24th, E. 54th and W. 160th Sts., in all 11,360 sq. yds. pavement, etc.; also with granite block, portions of W. 160th, W. 30th and E. 38th Sts., in all 5690 sq. yds., pavement, etc.; also constructing concrete sidewalks, laying and relaying flagging on various street, in all 3565 sq. ft. concrete sidewalk, 280 sq. ft. new flagging furnished and laid and 585 sq. ft. old flagging relaid.

Bids desired by Douglas Mathews, Pres. Boro. Bronx, until May 25 for furnishing and delivering 200,000 gals. asphalt road oil, 225,000 gals. coal tar road oil and 225,000 gals. tar road oil; also repairing asphalt block pavement and setting curb where necessary, together with all work incidental thereto, in all 7700 sq. yds. completed asphalt block pavement, etc.

Bids desired until June 1 by Douglas Mathewson, Pres. Boro. Bronx for repaving with redress granite blocks, Melrose Ave., 910 sq. yds. pavement, etc.; paving with bituminous concrete Austin Pl., Governor Pl., and Commonwealth Ave., in all 5810 sq. yds. pavement, etc.; paving with sheet asphalt, Morris Ave., 3280 sq. yds. pavement, etc.

Phelps, N. Y.—About $21,000 Main St. paving bonds have been sold by city.

★**Rochester, N. Y.**—Contract for paving with California asphalt East Side Boule. awarded by Bd. Supervs. to Whitmore, Rauber & Vicinus, 279 South Ave., at $35,555.

St. Johnsville, N. Y.—Citizens voted May 6 to issue bonds for paving Bridge St. with mack brick, and bids for the work desired by L. G. Walrath, Village Clk., until May 24, as advertised in Engineering Record. Engr., John R. Cook, St. Johnsville.

Freehold, N. J.—Lowest bid opened by Bd. Chosen Freeholders for paving Riverside Drive, submitted by J. Walter Butcher at $15,957.

Bids desired until May 27 by County Bd. Chosen Freeholders, Freehold (C. E. Close, Clk.) for furnishing material and constructing the 3d Sect. of Marlboro-Vanderburg Rd. Geo. D. Cooper, Co. Engr., 60 Broad St., Red Bank.

Jersey City, N. J.—Bids desired until May 27 by City Comrs. for improving Armstrong Ave. with Belgian block and brick.

★Contract for paving with brick Wegman Parkway awarded by City Comrs. to Philip Reilly, at 84% standard price.

★Contract for paving Communipaw Ave. awarded by Jersey City Comn. to Van Keuren Sons Co., Newark, at 78.46% standard price.

Contract is about to be let by Bd. Chosen Freeholders, Hudson County, at Court House, Jersey City, for improving Newark Turnpike. Entire improvement will cost about $500,000.

Montclair, N. J.—Bids desired until June 3 by Bd. Educ. (Frank J. Taylor, Secy.) for grading, including sidewalks, curbs, roadways, etc., at the new high school, advertised in Engineering Record.

★**Easton, Pa.**—Contract for repaving with brick S. Main St. awarded by Town Comrs. to Korp & Korp, Easton, at $38,000.

Johnstown, Pa.—See "Hydraulic Construction and River Improvement."

Northumberland, Pa.—Borough Council voted to pave one mile on Queen and Water Sts.

★**Oil City, Pa.**—Contract awarded May 3 for 8400 sq. yds. brick pavement and 1600 sq. yds. wood block to Lesher, Roess & Lesher, Oil City. B. B. Weber, City Engr.

★**Pittsburgh, Pa.**—Contract for paving Hamilton Ave. awarded by Robt. Swan, Dir. Pub. Wks., to M. O'Herron Co., 1st and McKean Sts., at $49,000.

★**Philadelphia, Pa.**—Contract awarded by Dept. Wharves, Docks & Ferries, for paving at Pier No. 38 South Delaware wharves (bids opened May 3), to the Eastern Paving Co., Field, Barker & Underwood and Carter Paving Co., at $7,500, $8,000 and $1,500, respectively.

Councils Highway Com. voted to spend about $200,000 for street improvements.

Easton, Md.—Kastenhuber & Anderson, of Easton, preparing estimates for concrete curb and gutters on remaining unpaved streets in Easton.

Towson, Md.—Bids desired until May 27 by County Comrs. (C. J. Fox, Ch. Clk.), for improving portions of roads with concrete as follows: Beaumont Ave., 9th Dist., ½ mile; Grindon Lane, 9th Dist., ½ mile; Hollins Ferry Rd., 13th Dist., 1 mile; Clarendon Ave., 1st Dist., ½ mile; Sparrows Point Rd., 15th Dist., 1 mile; Wise Ave., 15th Dist., ¾ mile; also grading Maiden Choice Rd., ¾ mile. W. G. Sucro, Roads Engr.

Wilmington, Del.—Bids desired until May 28 by Bd. Dirs., Street and Sewer Dept. (L. V. Christy, Secy.), for furnishing material, resetting and setting granite curb, constructing concrete curb, concrete and brick gutters, grading and excavating streets, constructing concrete foundations, and surfacing with sheet asphalt, or asphalt concrete, or bitulithic, or Warrenite, or vitr. block, or stone block, or creosoted wood block, or Portland cement concrete pavement; in all 330,000 sq. yds. street surface.

★**Bryson City, N. C.**—Contract awarded May 10 by County Highway Comrs. for grading about 8 miles of highway to Phillips & Munday, of Cornelia, Ga., at 29¾ cts. per cu. yd. unclassified.

Canton, N. C.—Citizens of Beaverdam Township, Haywood County, voted $50,000 bonds for road improvements.

Henderson, N. C.—Citizens voted May 11 to construct county highways.

Hertford, N. C.—See "Water Works."

East Lake, Ga.—See "Water Works."

Macon, Ga.—Bid desired June 1 by D. S. Jones, City Clk., for paving certain streets, including vitr. brick, wire lug cut brick, plain concrete, concrete covered with tarvia, creosoted wood block, asphalt block, sheet asphalt, asphalted concrete, bitulithic, tarvia concrete, fiber asphalt and bituminous macadam.

Lake City, Fla.—Bids desired until May 31 by Bd. Pub. Wks. (J. W. Layne, Secy.) for paving certain streets; all standard paving surfaces will be considered. Expenditure of $20,000 contemplated.

Tavares, Fla.—Bids desired until June 7 by County Comrs. (M. H. Duncan, Clk.), to construct a system of roads in Dist. No. 4, requiring approximately 98,973 lin. ft. roadway, 25,988 cu. yds. excav., 112,024 sq. yds. modified asphalt pavement, 7 bridges to be raised, 50 12-in. drains, 19.02 cu. yds. concrete and 500 lbs. steel. The J. B. McCrary Co., Engrs., Third Natl. Bank Bldg., Atlanta, Ga.

★**West Palm Beach, Fla.**—Contract awarded to Jonas & Garretson, West Palm Beach, for paving (bids opened May 7) from plans of J. B. McCrary Co., of Atlanta, as follows: 4029 cu. yds. excav. of all description, grubbing, clearing, etc., 30 cts.; 515 cu. yds. borrow taken from outside location, etc., 30 cts.; 41,000 sq. yds. broken stone in place, rolled, incidentals, etc., 40 cts.; 29,000 sq. yds. scarifying, rolling and resurfacing, 20 cts.; total $23,743.

Evergreen, Ala.—Bids reported desired until May 24 by County Comrs., for grading, draining and surfacing a portion of Evergreen and Andalusia Rd. and Evergreen and Belleville Rd. Probable cost, $11,159. W. S. Keller, State Highway Engr., Montgomery.

Starkville, Miss.—Following are 2 lowest bids opened May 1 by Chancery Clk. for constructing 27 miles rock roads in District No. 1: J. D. Harvey & Co., Memphis, Tenn., $117,703, and Owens Constr. Co., $118,177.

West Point, Miss.—Bids desired until June 7 by L. J. Howard, Clk. Co. Bd. Superv., for $20,000 Dist. No. 2 road bonds.

Baton Rouge, La.—Bids desired until June 21 (extension of date from May 15) by the Commission Council for laying approximately 170,000 sq. yd. bituminous gravel pavement with concrete curb and gutter, sub-surface drainage, etc.; also 22,000 sq. yd. hard surface pavement on concrete base. John J. Mundinger, City Engr.

Lake Charles, La.—Bids desired until June 1 by Highway Dept., Bd. State Engrs., New Orleans (Frank M. Kerr, Ch. Engr.), to construct approach to Calcasieu River Bridge, being a section of Lake Charles West Lake Highway, Calcasieu Parish.

★Contracts for constructing about 40 miles gravel roads awarded by Police Jury to Worthington Constr. Co., Grubbs & Herbert and F. Constance.

Columbia, Tenn.—Bids desired until May 25 by E. E. Erwin, City Recorder, for 8900 sq. yds. asphalt macadam, mixed method on macadam base; also 3800 running ft. combined curb and gutter. Contractor to surface and grade roadbed.

Cleveland, Tenn. — Bd. City Comrs. voted to spend $75,000 for street pavements.

Cleveland, Tenn.—City Comrs. have passed on final reading a $75,000 bond issue for street paving.

Jackson, Tenn.—No contract was let on bids opened May 4 by W. F. Alexander, City Clk., for paving with vitr. brick, creosoted wood, bitulithic, sheet asphalt and asphaltic concrete, approximately 35,000 sq. yds. Nothing further will be done in the matter until after June 15. H. M. Harris will be Street Comr. after June 15.

Knoxville, Tenn.—About $500,000 Knox County Road bonds have been sold.

McEwen, Tenn.—Citizens of Humphrey County voted $250,000 bonds for constructing public highway.

Somerset, Ky. — Surveys have been completed for constructing road through Pulaski County from Wayne to Lincoln County line. To be built by county, at cost of about $12,000.

Akron, O.—Bids reported desired until May 28 by County Comrs., for improving the Bath-Richfield Rd. Probable cost, $88,000.

Bellaire, O.—Citizens of Washington Township authorized the bond issue of $50,000 for road improvements.

Berlin Heights, O.—Bids desired until June 1 by Trustees Berlin Township, Berlin Heights, for improving Ceylon Rd., a distance of 2.15 miles. Width of pavement, 9 ft.; width of roadway, 26 ft. A. C. & L. A. Schultz, Engrs., Sandusky. T. M. Elson, Township Clk.

Columbus, O.—Bids desired until June 1 by Director Pub. Service (Paul B. Kemper, Clk.) for improving portions of Brighton Ave., Clinton, 18th and several other streets. Bids desired on asphalt, brick and stone block.

Bids desired until June 26 by Frank S. Miller, Clk. Bd. Trus., Marion Township, Station C, Columbus, to furnish material and construct the Lockburne Rd., a distance of 4045 ft

Cincinnati, O.—Bids desired until June 11 by County Comrs. (Albert Reinhardt, Clk.), for improving Taylor Creek Rd., Miami and Green townships; also repairing Batavia Pike, a distance of 25,300 ft in Anderson Township; also approaches to bridge over Little Miami River on Beechmont Ave., Anderson Township.

Defiance, O.—Press reports state bids desired by County Comrs. until May 31 for $51,000 road improvement bonds.

Delaware, O.—Bids reported desired until May 26 by County Comrs., at office of F. C. Higley, Co. Surv., for grading, draining and macadamizing Taylor, Rosecrans and Tussic Sts.

Eaton, O.—About $57,000 bonds for paving Main and Cherry Sts. were sold by City Council.

Norwalk, O.—Bids reported desired until June 7 by L. Snook, City Aud., for $35,000 street improvement bonds.

Savannah, O.—Bids desired until June 1 by Bd. Trus., Clearcreek Township, Savannah, at office of H. H. Camp, Township Clk., for grading, draining and constructing water or bituminous bound macadam on about 5 miles road in said township. R. T. Scantlebury, Co. Surveyor, Sandusky.

Steubenville, O.—Bids desired until June 4 by County Comrs. for constructing Yellow Free Turnpike, about 6.2 miles. John L. Means, Co. Aud.

★**Toledo, O.**—Contract awarded May 7 for furnishing Glutrin for repair of streets, to the Robeson Process Co., 1001 Hoffman Bldg., Columbus. Chas. J. Sanzenbacher, Co. Aud.

★**Toledo, O.**—Contract awarded May 14 by Co. Comrs. to Russell & Jennison Co., Nicholas Bldg., Toledo, for grading and macadamizing with a bituminous binder Washington Township stone and gravel road No. 65, a distance of 1.6 miles, in Washington Township. Chas. J. Sanzenbacher, Co. Aud.

West Alexandria, O.—Smith & Boubay Co., Nasby Bldg., Toledo, have been retained to prepare plans for paving Dayton Ave. and Main St.

Wooster, O.—Bids reported desired until May 25 by Peter C. Given, City Clk., for grading, draining, a portion of N. Beaver St.

Youngstown, O.—Bids desired until May 25 by Bd. Pub. Service (H. C. Fox, Clk.), for paving Blaine, Powersdale and Glenaven Aves.

Zanesville, O.—Citizens voted May 11 to issue $28,650 bonds for repaving streets. $12,919.

★**Brownstown, Ind.**—Contracts for constructing roads awarded by County Comrs. as follows: 2 miles 16-ft. concrete roadway, to Kennedy, Dale & Fulwider, Lebanon, at $24,518, and for 2 miles 20-ft. concrete roadway, to Ewing Shields, Seymour, at $29,333.

★**Indianapolis, Ind.**—Contract for paving with concrete 2½ miles on Bethel Ave. awarded by Bd. County Comrs. to Wm. Coin, Frankfort, at $37,200.

★*Items marked thus give the names of parties awarded contracts.*

Noblesville, Ind.—Bids reported desired until June 8 by County Comrs., to construct the Indianapolis Boule., a distance of 3 miles, with concrete. Probable cost, $53,000.

Kalamazoo, Mich.—Following are bids opened May 3 for 20,000 sq. yds. asphaltic concrete pavement (with or without squeegee coat)—(a) Bermudez, (b) squeegee coat Bermudez, (c)Aztec, (d) squeegee coat Aztec, (e) Pioneer, (f) squeegee coat Pioneer, (g) Mexican, (h) squeegee coat Mexican (price per sq. yd.): Globe Constr. Co., Kalamazoo, (a) 77 cts., (b) 83 cts., (c) 73 cts., (d) 78 cts., (e) 77 cts., (f) 83 cts.; (g) 70 cts., (h) 75 cts.; H. G. Goelitz Co., Chicago, Ill., (c) 75 cts., (d) 80 cts., (e) 77 cts., (f) 82 cts.: S. S. Saxton Co., Chicago, Ill., (a) 79 cts., (b) 85 cts., (e) 77 cts., (f) 83 cts., (g) 71 cts., (h) 77 cts. The excav. and concrete foundation will be done by the city. A. Lenderink, City Engr.

★**Saginaw, Mich.**—Contracts have been awarded by Bd. Pub. Wks. (Geo. Holcomb, Comr.) for paving as follows: To S. S. Saxton Co., of Chicago, Ill., for Trinidad sheet asphalt on 6-in. concrete base, $1.33 per sq. yd., and for Trinidad sheet asphalt on old macadam, $1.03 per sq. yd., 35,000 sq. yds.; to Johnson Constr. Co., Chicago, Ill., for 3-in. creosoted block on 6-in. concrete base, using long leaf yellow pine, No. 2 oil and pitch fill, at $2.45 per sq. yd., 12,000 sq. yds., and to D. La Londe, of Saginaw, for Saginaw brick on old macadam base, at $1.31 per sq. yd., 4500 sq. yds. On all work City furnishes cement.

Aurora, Ill.—Bids desired May 25 by Bd. Local Improv. for constructing about 8200 yds. slag filled asphalt pavt., 5000 yds. brick pavt. and 3980 ft. concrete gutters on Bway., Fox and New York Sts., advertised in Engineering Record. Myron J. Tarble, City Engr.

Illinois.—Bids desired until May 26 by State Highway Comn., Springfield, as follows: (All cement to be furnished by State, except as noted)

Marshall County (nearest P. O. Lacon), Sect. B, concrete construction, approximate length, 2600 ft., cost $5,381; also Sect. B, bridges, 447 cu. yds., cost $6,490 (no material furnished by State).

Kane County (nearest P. O. N. Aurora), Sect. B, road and bridge, cost $2,433.

★**Mt. Carmel, Ill.**—Contract awarded May 11 for 23 miles gravel road, to P. W. Lenahan, Vincennes, Ind., at $63,000. Next 3 lowest bids: G. W. Morgan & Son, Maunie, Ill., $65,284; Hoffman & Townsend, Mt. Carmel, $66,000; Collins & Pavey, Mt. Vernon, $66,080. Guy W. Courter,, Co. Supt. of Highways.

★**Tuscola, Ill.**—Contract awarded May 14 for constructing 2 miles Portland cement concrete road to Goggin Constr. Co., of Arcola, at $14,525. Other bids: Ajax Constr. Co., Gary, Ind., $14,574; Rees Bros., Quincy, $15,154; Bloodgood & Co., Harvey, $15,232; Andrew Ward & Co., Chicago Heights, $15,642. L. O. Hackett, Co. Supt of Highways.

Oconto, Wis.—Bids desired by B. C. Mulvaney, City Clk., until May 27 for 14,000 sq. yds. paving on macadam foundation and 3300 lin. ft. curb.

Corydon, Ia.—A. G. Gallagher, City Clk., writes that it is proposed to pave State, West and Anthony Sts. with asphalt, brick or concrete, about 26,050 sq. yds., on 5-in. concrete foundation, and 21,000 lin. ft. curb and gutter; cost $60,000. M. G. Hall, Engr., Centerville.

★**Forest City, Ia.**—Contract awarded by City Council May 12 for 32,778 sq. yds. vertical fiber brick pavt., asphaltic fill, to J. S. McLaughlin & Sons., Red Oak, at $1.74 per sq. yd. They also secured contract for the storm sewers at the following bid: Sewer pipe, 15-in., per ft., 60 cts.; 12-in., per ft., 52 cts.; 8-in., per ft., 40 cts.; 6-in., per ft., 35 cts.; 10 x 6-in. Y specials, each 80 cts.; 8 x 6, 50 cts.; 6 x 6, 28 cts.; 36-in. manholes, per foot, $3.50.

★Contract for curb and gutter, 22,000 lin. ft., awarded to W. G. Birdsall, Perry, Ia. He bid for curb and gutter for brick pavt., straight curb, 58 cts.; curb and gutter for brick pavt., park curb, 56 cts.; 6 x 18-in. plain concrete curb, 34 cts.; extra per 1 in. additional depth of curb, 2 cts. Engineer Theo. S. De Lay, Creston.

★**Moline, Ill.**—Following are bids opened May 12 by Bd. Local Improv. (Lyle Payton, Secy.) for asphalt paving on 19th Ave.: (a) Western Improv. Co., Racine, Wis., $66,665; (b) McCarthy Improv. Co., Davenport, Ia., $61,247 (awarded contract); (c) J. J. Dunnegan, Shenandoah, Ia., $66,319; (d) J. W. Bushell, Peoria, $70,432.

	(a)	*(b)	(c)	(d)
8,900 cu. yds. excavation	$0.40	$0.25	$0.35	$0.35
28 60-in. catch basins, ea.	30.00	25.00	20.00	30.00
3 90-in. catch basins, ea.	40.00	40.00	25.00	40.00
1 106-in. catch basin	80.00	80.00	75.00	80.00
1 212-in. catch basin	160.00	160.00	150.00	160.00
4 manholes, ea.	40.00	35.00	35.00	35.00
11,025 ft. 6 x 15-in. concrete curb	.40	.27	.35	.28
865 ft. 6 x 12-in. concrete header	.30	.26	.30	.26
12,810 ft. combined curb and gutter	.65	.60	.70	.63
21,375 sq. yds. concrete base	.60	.55	.74	.65
24,700 sq. yds. asphalt pavement	1.23	1.19	1.10	1.40
460 ft. 6-in. drain tile	.40	.27	.30	.27
597 ft. 12-in. sewer pipe	.50	.50	.45	.50
368 ft. 15-in. sewer pipe	.70	.65	.70	.65
415 ft. 18-in. sewer pipe	.90	.86	.80	.86
784 ft. 24-in. sewer pipe	1.20	1.40	1.25	1.40
318 ft. 30-in. sewer pipe	2.00	2.30	2.50	2.30
361 ft. 36-in. sewer pipe	2.75	3.50	3.00	3.50

Ft. Dodge, Ia.—Contract is about to be let by city for paving with brick 3d St., with asphaltic concrete 4th St., with creosote blocks 2d St., with sheet asphalt 1st St.

Brainerd, Minn.—Bids reported desired until June 1 (readvertisement) by C. W. Mahlum, Co. Aud., for redecking with creosoted blocks Laurel St. Bridge over Mississippi River.

St. Paul, Minn.—Bids reported desired until 10:30 A. M., May 24, by Aug. Hohenstein, Purchasing Agt., paving with creosoted blocks on portions of Lexington Ave., Wabasha and other streets.

St. Louis, Mo.—Bd. Public Service contemplates paving portions of Minnesota, Magnolia, Duncan, Mitchell, Compton, Ashland Aves. with brick.

Bryan, Tex.—Bids desired until June 2 by County Comrs. for purchase of bonds for constructing highways in Rd. Dist. No. 1, to the amount of $400,000. J. T. Maloney, Co. Judge.

Cuero, Tex.—Bids desired until June 1 by County Comrs. Court, for $50,000 road bonds. R. J. Waldeck, Co. Judge.

★**Ennis, Tex.**—Contract for 26,000 sq. yds. brick pavement awarded by City Council to Kaw Paving Co., Topeka, Kan., at $57,939.

★**Forney, Tex.**—Contract awarded May 11 for constructing system roads and bridges in Prect. No. 2, to Sline, Layden & Davis. Funds available about $200,000. Jas. A. Conley, Co. Judge.

Yoakum, Tex.—Citizens of Road Dist. No. 1, Lavaca County, voted $50,000 bonds for road improvements.

Castle Rock, Wash.—Bids reported desired until May 29 by K. E. Taylor, Town Clk., for grading, paving, etc., certain streets in Local Improv. Dist. No. 5, requiring approximately 9800 sq. yds. concrete pavement, etc.

Dayton, Wash.—Bids reported desired until May 27 by County Comrs., for surfacing with 6-in. layer of crushed rock 3 miles Johnson Hollow Rd. F. W. Guernsey, Co. Engr.

★**Everett, Wash.**—Contract awarded May 7 for paving Everett Ave. from Walnut St. to B'way., to Washington Paving Co., of Tacoma; cost about $40,000. Lewis Lesh, City Clk.

Montesano, Wash.—Bids reported desired until May 31 by W. D. Campbell, Co. Aud., to construct a mile of Wynooche-Wishkah Rd., to consist of clearing, grading, grubbing and constructing culverts. Probable cost, $20,000.

Newport, Wash.—Bids reported desired by County Comrs., until June 1 by County Comrs., for gravel surfacing of 1.52 miles of Permanent Highway, No. 5, northwesterly from here. H. A. Sewell, Co. Engr.

Port Townsend, Wash.—Bids reported desired until June 2 by John D. Lidders, Co. Aud., for grading, clearing, grubbing, constructing roads and culverts on 3 miles of road known as the Jefferson-Clallam Rd. G. D. Edwards, Co. Engr.

Seattle, Wash.—Bids reported desired until June 1 by County Comrs. (Byron Phelps, Clk.), for constructing D. C. Mitchell Rd. Probable cost, $50,000. Arthur P. Denton, Co. Eng.

City Council voted to pave W. Blaine, E. Marginal Way and 10th Ave.

★Contract for paving 9th Ave. west awarded by Bd. Public Works to P. J. McHugh Paving & Constr. Co., 3d, North and Mercer Sts., at $39,430.

Following are lowest bids opened by Bd. Pub. Wks. May 7 for constructing concrete curbs on 37th St.: L. Coluccio, 1642 Lane St., Seattle, $10,881, and for paving Brooklyn Ave., Washington Paving Co., Savage-Scofield Bldg., Tacoma, at $50,560, grading and paving Admiral Way Booker, Kiehl & Whipple, Northern Bank Bldg., $239,059.

Bids reported desired until June 14 by County Comrs. (Byron Phelps, Clk.) for constructing Redmond-Issaquah Rd., being a part of Bond Rd. No. 4. Probable cost $60,000.

Stevenson, Wash.—Bids reported desired until June 8 by Chas. N. Nellor, Co. Aud., to construct a mile of permanent highway, exclusive of bridges, in Stevenson-Carson Rd. Probable cost, $18,000.

Tacoma, Wash.—Reported bids desired about June 1 by County Comrs., for paving about 5 miles road between Alderton and Orting. Probable cost, $80,000.

★Contract for surfacing with roadamite 12½ miles in Pierce County awarded to Oregon Road Oiling Co., Portland, at 4½ cts. per sq. yd.

Metropolitan Park Comn. contemplates constructing one mile concrete walks at Point Defiance Park.

Washington—Bids reported desired until June 7 by State Highway Bd., Olympia (Wm. R. Ray, Comr.), for clearing, grading and draining about 1½ miles Highway from Kalama North in Cowlitz County and surfacing about 2 miles Pacific Highway between Woodland and LaCenter, Clarke Co.

Condon, Ore.—County Comrs. contemplate hardsurfacing one mile road to connect with city pavement.

Oregon City, Ore.—Contract is about to be let by city for asphaltic concrete pavement on Main St.

★**Portland, Ore.**—Contract for constructing concrete pavement and cement walks on Talbot Rd. awarded by City Council to Manning & Co., Portland, at $17,301.

★Contract for paving E. Water St. with basalt blocks awarded by City Council to Montague O'Reilly Co., Portland, at $9,411.

About $1,270,625 bonds have been sold by Multnomah County Comrs.

Roseburg, Ore.—State Highway Comn. Salem, considering constructing 4-mile road to connect Pacific Highway in Cow Creek Canyon with Josephine County line, cost about $20,000.

Berkeley, Cal.—City Engineer has been directed to prepare plans for paving San Pablo Ave. and other streets; cost about $140,000.

★**California.**—Contract awarded May 8 by California Highway Comn., Forum Bldg., Sacramento, for highway work in Monterey County, Div. 5, Route 2, Sect. E, to Highway Paving & Constr. Co., 26 Montgomery St., San Francisco, at $51,393 (bids opened Apr. 26). Unit prices in Engineering Record of May 8.

El Monte, Cal.—New bids will be called for about June 4 by L. Worth Everett, City Clk., for 121,820 sq. ft. oil macadam pavt. and 21,200 sq. ft. concrete walk on Main St., 101,605 sq. ft. concrete base with asphalt concrete top and 18,915 sq. ft. sidewalk on Tyler St., 11,376 sq. ft. oil macadam on Columbia St. and 19,500 sq. ft. concrete base with asphalt concrete top and 6500 sq. ft. concrete walk on Center St. Bids opened May 7 were rejected on account of recent Appellate decision affecting street work.

Hanford, Cal.—Citizens of Kings County voted $672,500 bonds for road improvements.

Los Angeles, Cal.—Bids desired June 1 by Bd. Superv. for county road improv. in Road Dist. No. 68, including about 2.32 miles oil macadam, 5 in. thick; cost $18,187.

San Francisco, Cal.—Bd. Pub. Wks. voted to pave Balboa, Geary Sts. and section of Fulton St.

Phoenix, Ariz.—About $125,000 paving bonds were sold by Apache County Comrs.

Sandpoint, Idaho.—Contract will be let by City Council about June 8 for paving Cedar, Main, Bridge Sts., 1st and 2d Aves.

Montreal, Que.—About $611,618 is to be spent by city for cement and asphalt sidewalks.

Westmount, Que.—The City Engineer writes it is proposed to pave Belmont, Grosvenor, Clarke and other streets with stone block and 2-in. asphalt, 1-in. binder on 5-in. concrete foundation; cost, $20,000.

Toronto, Ont.—Bids desired until May 25 by T. L. Church (Mayor), Chmn. Bd. Control, for paving with asphalt, St. Nicholas and Wellington Sts.

Victoria, B. C.—City Council voted to spend $60,000 for street pavements.

STREET CLEANING AND GARBAGE DISPOSAL.

Items Arranged Geographically

Madison, Wis.—E. E. Parker, City Engr., has been authorized to prepare plans for a garbage incinerator.

Lincoln, Neb.—Citizens voted May 4 to construct garbage reduction plant. Adna Dobson, City Engr.

Toronto, Ont.—Bids desired until May 25 by T. L. Church (Mayor), Chmn. Bd. Control, for furnishing and driving piling for incinerating plant on Don Roadway.

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Items Arranged Geographically

★**Dredging — Boston, Mass.** — Contract awarded by State Harbor and Land Comrs. to Eastern Dredging Co., 172 Condor St., East Boston, for dredging Bass River, Dennis and Yarmouth, and Deacon's Pond Harbor; total cost, about $25,000.

Dredging—Boston, Mass.—Bids desired until June 21 by Col. W. E. Craighill, Corps Engrs., U. S. A., Boston, for dredging in Chelsea Creek and in channel Nixes Mate and Long Island, Boston Harbor, Mass., advertised in Engineering Record.

Dredging and Rebuilding Wharves, etc. —Newport, R. I.—Bids desired by Col. John Mills, Corps Engrs., U. S. A., Newport, on following dates for work as follows:

Until June 12—Rebuilding wharves and building new sea wall and coal house at U. S. Bureau of Fisheries, Station, at Woods Hole, Mass.

Until June 16—Dredging in harbor of refuge at Block Island, R. I.

State Canal Work—Albany, N. Y.—Gov. Whitman has approved the bill providing for issue of $27,000,000 additional canal bonds, contingent on approval of voters next fall.

★**Dredging—Buffalo, N. Y.**—Contract reported awarded by Col. J. G. Warren, U. S. A., to Arthur E. Breyman, Toledo, O., for dredging channel from Canadian to American waters below Schlosser's dock, at about $38,850.

★**Dredging—Atlantic City, N. J.**—Contract awarded May 13 for dredging sand and mud portions of Clam Creek and Delta Basin, 103,800 cu. yds. to Hill Dredging Co., Atlantic City, at 13.25 cts. per cu. yd.; Rickards Dredging Co., Philadelphia, Pa., bid for the work 16.5 cts.

Boardwalk—Stone Harbor, N. J.—Citizens voted May 10 to issue $33,000 bonds to build a boardwalk along the ocean.

Superstructure of Pier—Erie, Pa.—Bids desired June 19 by Capt. L. V. Frazier, Corps Engrs., U. S. A., Buffalo, N. Y., for constructing concrete superstructure on north pier, Erie Harbor, Pa., advertised in Engineering Record.

River Wall—Johnstown, Pa.—Press reports state that A. B. Curry, Boro. Engr., has prepared preliminary plans for river wall along River Ave.; also for a boulevard.

Dam—Lock Haven, Pa.—Bids desired June 14 by Allen Sterner, Supt. of Parks and Public Property, Lock Haven, for constructing a portion of storage Dam No. 1 on McElhattan Run, Wayne Township, Clinton County, advertised in Engineering Record. H. P. Shoemaker, City Engr.

Dredging—Philadelphia, Pa.—Bids desired June 21 by U. S. Engineer's Office, 815 Eitherspoon Bldg., Philadelphia, for dredging in Delaware River, opposite Port Richmond, coal piers, Philadelphia Harbor, advertised in Engineering Record.

Ditch—Wilmington, N. C.—Bids desired until May 24 by M. H. F. Governeur, Secy. New Hannibal Drainage Dist. No. 1, for 9 miles ditch, 5 ft. deep, 1½ ft. bottom, requiring 53,000 cu. yds. excav., 4 55-ft. metal culverts. J. L. Becton, Engr., Wilmington.

Drainage—Savannah, Ga.—E. R. Conant, City Engr., estimates cost at $500,000 to complete drainage system by voting the additional bonds it would be possible to entirely furnish the work by the middle of 1916.

Drainage—Toccoa, Ga.—It is reported that Stephens County will establish the Broad River Drainage Dist. between Hayes bridge, in Stephens County and Jackson's Mill bridge, in Jackson County, a distance of 16 miles, at a cost of $100,000.

★**Stone—New Orleans, La.**—Following are bids opened Apr. 13 by Maj. Edw. Schultz, Custom House, New Orleans, for 10,000 cu. yds. stone at South and Southwest Pass Mississippi River (price given per cu. yd.): Lester F. Alexander, New Orleans, $3.1898 (awarded contract); Will McFarlin, Birmingham, Ala., $3.20; A. E. Massey, New Orleans, $3.28; Oscar F. Barrett, Cincinnati, $3.23; Southern Dredging Co., Mobile, Ala., $3.28.

★**Levee — Clarksdale, Miss.**—Contract awarded May 12 by Levee Board (T. B. Dabney, Ch. Engr.) for 138,000 sq. yds. levee work, to W. R. Ellis, Clarksdale, as follows: Unit 1, 47 cts. per sq. yd.; Unit 2, 39½ cts.; Units 3, 4 and 5, 38½ cts. per sq. yd. Next lowest bidder, Tuscaloosa Concrete & Supply Co., Tuscaloosa, Ala., 42 cts. per sq. yd. on all units.

Drainage Bonds—Corinth, Miss.—Bids desired June 1 by Alcorn County Drainage Comrs. for $12,000 Chambers Creek Drainage Dist. bonds. Ely B. Mitchell, Attorney, Corinth.

★**Drainage—Dyersburg, Tenn.**—Contract awarded May 14 by Directors of Reed's Creek Drainage Dist. to R. H. & G. A. McWilliams, of Memphis and Chicago, for 660,000 cu. yds. ditch excavation. The contractor also purchased the bonds. Morgan Eng. Co., Memphis, Tenn., Engrs. for Dist.

Dredging—Trenton, Tenn.—Bids desired until June 9 by Direc. Drainage Dist. No. 2, Trenton (W. W. Powers, Chmn.), for excavating by dredge boat, approximately 1,158,386 cu. yds. earth.

Creek Improvement — Ottawa, O.—Press reports state bids desired by County Comrs., Henry and Putnam Counties, at Ottawa, until May 25 for the South Turkey Creek improvement, straightening and widening; will cost about $12,000.

★*Items marked thus give the names of parties awarded contracts.*

★**Sea Wall—West Palm Beach, Fla.**—Following are bids opened May 7 for constructing reinforced concrete sea wall, from plans of J. B. McCrary Co., of Atlanta, Ga.: Jonas & Garretson, West Palm Beach (awarded contract); (b) Mishler & Flynn; (c) G. W. Brown; (d) Evert P. Maule:

	*(a)	(b)	(c)	(d)
1,402 cu. yds. concrete	$12.00	$16.50	$14.40	$14.45
60,000 lbs. steel bar reinforced	.03	.042	.036	.03
93,000 lbs. steel wire reinforced	.03	.06	.045	.04
11,460 lbs. galv. anchor rods, bolts, nuts and washers	.03	.08	..	.06
5,720 lin. ft. 10-in. round wooden pile	.20	.45	.20	.35
500 lin. ft. 12-in. round wooden pile	.20	.50	.20	.40
5 M ft. square timber	30.00	40.00	30.00	40.00
91,923 cu. yds. filling behind sea wall	.12	..	.14	.15
2,415 sq. yds. concrete sidewalk adj. sea wall	1.00	1.08	1.08	1.00
Totals	$36,597	$37,962	$43,126	$45,072

Ditch—Anderson, Ind.—Bids reported desired until May 29 by Wm. F. McVaugh, Drainage Comr., at office of County Surveyor, for constructing E. H. Peters et al Ditch, to include 5 branches, requiring 257,408 cu. yds. excav.; probable cost $47,254.

Drain—Hastings, Mich.—Press reports state that Comrs. of Barry County will soon begin construction of Gun River drain in Western part of Barry County, to be 10 miles long, 30 ft. wide, and from 6 to 10 ft. deep.

Dredging—Chicago, Ill.—Bids desired May 26 by W. R. Moorhouse, Comr. Pub. Wks., for dredging river at South Halsted Bridge over South Branch of Chicago River.

Drainage—Madison, Wis.—W. G. Kirchoffer, 22 North Carroll St., is in the market for a cableway, orange peel bucket and hoisting engine, new or used. Also, wishes to correspond with contractors having such an outfit who would like to bid on work involving 40,000 to 80,000 yds. of excavation.

Levee—Muscatine, Ia.—City Council has passed appropriation of $15,000 for levee improvements.

Ditch—Webster City, Ia.—Bids desired June 7 by Bd. Superv. for constructing Cleveland Drainage Ditch No. 171: Sect. 1—Including main line and branches, 8911 ft. 6, 20, 22, 26, 30 and 36-in. tile; Sect. 2—Main line and Branch 5, 3560 ft. 7, 20 and 22-in. tile; Sect. 4—Main line and Branches 2, 3 and 6-6, 989 ft. 6, 12, 15, 18 and 20-in. tile. A. J. Peterson, Co. Aud.

Ditch—Jackson, Minn.—Bids reported desired until May 25 by P. D. McKellar, Co. Aud., for constructing Judicial Ditches Nos. 31 and 37. Probable cost of tile portion of said ditches $14,171 and $7,620 respectively.

★**Dredging—St. Paul, Minn.**—Contract reported awarded by State Drainage Board, to Central Bredging Co., Cleveland, for completing Roseau River deepening project. State Legislature has appropriated $50,000 for the work.

Earthwork for Levee—St. Louis, Mo.—Bids desired June 17 by Secretary Mississippi River Comn., 1311 International Life Bldg., St. Louis, Mo., for constructing about 175,000 cu. yds. earthwork in East Side Levee and Sanitary Dist., Ill., advertised in Engineering Record.

★**Levee Work—Helena, Ark.**—Contract awarded May 6 for constructing in Cotton Belt Levee Dist. about 1,388,000 cu. yds. of 40 ft. levee banquette, to Bunt, Band & McMurray, of Beulah, at $236-937. Other bids: Roach Stansell & Lowrance Bros., Memphis, Tenn., $252,338; W. T. & E. M. Lowrance, Friar Point, Miss., $252,670; Linnan Bros., Memphis, Tenn., $263,803. All material borrowed on land side of levee, about 16 miles of filled work, balance timber in pits, average haul about 375 ft., height about 8½ ft.

Drainage—Eagle Lake, Tex.—Bids reported desired until June 1 by Comrs. Court, County Drainage Dist. No. 1 (F. C. Koone, Secy.), to construct about 16 miles drainage canals, aggregating 66,000 cu. yds. excav. Address Norris Eng. Co., Wharton.

Drainage—Victoria, Tex.—Election will probably soon be held in this county for the issue of $190,500 bonds to establish a drainage district in northeast section of county.

★**Levee—Waxahachie, Tex.**—Contract awarded by T. H. Harbin, Waxahachie, May 10 for constructing levee on Chambers Creek, about 175,000 cu. yds., to L. M. Horton, of Ennis.

★**Stone for Jetty—Lone Tree, Wash.**—Contract awarded by Lieut.-Col. J. B. Cavanaugh, Corps Engrs., U. S. A., Seattle, to furnish and deliver stone for jetty construction at Lone Tree, Gray's Harbor to Hercules Sandstone Co., Tenino, at $310,000 (bids opened Apr. 28).

Irrigation—Prosser, Wash.—L. M. Rice & Co., Smith Bldg., Seattle, have completed surveys for an irrigation district, comprising a section of the Horse Haven Country, and a meeting will be held at Courthouse, June 11, for the purpose of forming the district; project estimated at $10,000,000.

Drainage Work—Sunnyside, Wash.—Bids reported desired until May 28 by County Comrs., for 11,766 ft. vitr. clay or concrete pipe in Drainage Dist. No. 24. J. O. Greenway, Drainage Engr., Sunnyside.

Irrigation—Hermiston, Ore.—Reported that the Western Land & Irrigation Co. (J. W. Messner, Pres., Hermiston), plans to construct 18 miles of feed canal and reservoir to increase water supply on track lying 2 miles west of Hermiston, water to be diverted from Umatilla River. Applications have been made to State Engr. for permission to build reservoir and diversion dam.

Stone for Jetty—Portland, Ore.—Bids desired until June 7 by Lieut.-Col. C. H. McKinstry, Corps Engrs., U. S. A., Portland, for furnishing and delivering stone for jetty construction, mouth of Columbia River, Oregon and Washington.

★**Dry Dock — Portland, Ore.**—Contract reported awarded by Comn. May 8 for construction of additional wing and for removal of old wings at Dry Dock St. John, to McAllister & Son, 317 Lewis Bldg., Portland, at $33,950 and $35,000, respectively.

Dry Dock—San Francisco, Cal.—Chas. M. Schwab, Pres. Bethlehem Steel Cor. is reported interested in construction of a drydock at Hunters Point, near San Francisco.

Canal Excavation—Payson City, Utah.—Bids desired until June 16 at office of U. S. Reclamation Service, Provo, for construction, involving about 25,000 cu. yds. canal excavation, and about 2600 cu. yds. reinforced concrete. Work is located near Payson City on San Pedro, Los Angeles & Salt Lake R.R. and Tintic Branch of D. & R. G. R.R.

ELECTRIC RAILWAYS.

Items Arranged Geographically

Brooklyn, N. Y.—Bids were opened May 18 by Public Service Comn. for First Dist., 154 Nassau St., New York, for constructing Sect. No. 2 of Route No. 49, part of the Culver Rapid Transit R. R., Boro. Brooklyn, and in all 17 bids were submitted, ranging from $863,775 to $1,051,006. Following are unofficial totals of 4 lowest bids received, all being contractors of New York City; Oscar Daniels Co., $863,775; Snare & Triest Co., $867,390; A. L. Guidone & Co., Inc., $877,097; Phoenix Bridge Co., $877,920.

Johnstown, Pa.—Surveys have been made by Somerset St. Ry. Co. on its line to connect Johnstown and Rockwood, distance of 36 miles. G. C. Winslow, Gen. Mgr., Somerset.

★**McConnellsburg, Pa.** — Contract for constructing McConnellsburg & Ft. London Ry. between McConnellsburg and Ft. London awarded to Reed & Co., Hazleton.

Cleveland, O.—About $500,000 will be spent by Cleveland Electric Ry. Co. for operating stations, tracks, and overhead work in connection with new carhouse and repair shop. Geo. L. Radcliffe, Gen. Mgr., Cleveland.

New Orleans, La.—Plans are being made by New Orleans Ry. & Light Co. to enlarge its power plant on river front at Market St.; cost about $25,000 and for new machinery about $100,000. M. S. Sloan, Gen. Mgr., New Orleans.

Cleveland, O.—Mayor on May 6 approved following ordinances: authorizing Cleveland Ry. Co. to erect an operating station and shop costing $100,000; also construct tracks and overhead construction at the new operating yards, cost $80,000; said work is at Deison Ave. and 73d St.; also an ordinance to construct tracks and overhead construction work and installation of necessary handling machinery at way yard, Harvard Ave. and E. 42d St.; cost $100,000.

★Contract awarded by Cleveland Ry. Co. to W. I. Thompson & Son Co., 6110 Euclid Ave., for constructing at Harvard Ave and 55th St. buildings costing $99,500.

Davenport, Ia.—Tri City Ry. & Light Co. contemplates constructing 2 miles track extension and 3 miles track reconstruction during 1915.

Omaha, Neb.—Omaha & Council Bluffs St. Ry. Co. contemplates reconstruction of 4 miles track.

Wahpeton, N. D.—The Wahpeton-Breckenridge St. Ry. Co. plans to build a power house in Wahpeton. H. C. Hartung, Gen. Mgr., Breckenridge, Minn.

Toronto, Ont.—Bids desired May 25 by T. L. Church (Mayor), Chmn. Bd. Control, for cedar ties for Landsowne Ave. extension Toronto Civic Ry. No. 53, advertised in Engineering Record.

RAILROADS.

Items Arranged Geographically

Buffalo, N. Y.—Following are reported to be bids opened by the Grade Crossing Comn., for construction of 2 subways at the Pennsylvania Railroad tracks at Smith and Lord Sts., (a) concrete, (b) stone: Lathrop, Shea & Henwood, (a) $71,988; (b) $76,473; J. F. Stabell, (a) $73,842; (b) $80,762; John Johnson, (a) $76,642; (b) $79,116; Eastern Concrete & Steel Constr. Co., (a) $81,117; (b) $85,757.

Queens Borough, L. I., N. Y.—Bids desired June 7 by A. C. Shand, Ch. Engr., Southern Division, N. Y. Connecting R. R. Co., Broad St. Station, Philadelphia, Pa., for grading and masonry work on portion of Sect. 2, N. Y. Connecting R. R., extending from a point near Bowery Bay to south side of Fremont St., in Borough of Queens, a distance of about 4.21 miles, advertised in Engineering Record.

★**West Palm Beach, Fla.**—The Everglades Constr. Co. reported to have closed contract with E. P. Maule for completion of first section of Palm Beach & Everglades Railroad. The first section of this road is 23 miles long, and will reach from West Palm Beach along north bank of West Palm Beach Canal to point where canal turns to northwest.

St. Joseph, Mo.—The Burlington Route (W. A. Card, Div. Supt., St. Joseph) reported to have decided to construct a 200 mile road from St. Joseph to Mexico, Mo.

Galveston, Tex.—It is reported that the Gulf, Colorado & Santa Fé R. R. Co. (F. Merritt, Ch. Engr., Galveston) will spend $228,445 for track betterment at various points along the line. A brick and stucco depot will be erected at Coleman; $23,843.

Longview, Tex.—The Red River & Gulf Terminal Ry. Co., of Longview, reported incorporated with a capital of $75,000, to construct a railroad from the ore mines of Marion County, to present terminus of Port Bolivar Iron Ore Co., through Marion, Cass, Morris and Red River Counties, to a point on Red River southeast of Hugo, Okla., a distance of 75 miles. Incorporators: C. A. Bodenheim, T. C. Morgan, R. M. Kelly and others.

Warren, Ariz.—The Tucson, Cornelia & Gila Bend Railroad Co. reported formed to extend from Gila Bend to Tucson; capital, $3,600,000. Directors: L. D. Ricketts and J. C. Greenway, of Warren, Ariz.; Walter Douglas, of Bisbee, and others. Place of business will be at Warren.

Alaska.—See "Miscellaneous."

PUBLIC BUILDINGS AND SCHOOLS.

Items Arranged Geographically

★**Auburn, Me.**—Contract for erecting the brick and concrete school awarded to Otto Nelson Co., of Bangor, at $76,925. Harry S. Coombs, Archt., Lewiston.

★**Ashburnham, Mass.**—Contract awarded for rebuilding Ashburnham House dormitory at Cushing Academy, to H. Wales Lines Co., of Meriden, Conn., at $50,000. It will be 3 stories, 100 x 80 ft. Archt., Frank I. Cooper, 33 Cornhill, Boston.

Boston, Mass.—Supt. of Public Buildings has been authorized by the Mayor to ask bids for erecting the police and school administration building on Tremont St.

Boston, Mass.—Bids desired until July 1 by Rich. A. Lynch, Supt. Supplies, for erecting a police station and school administration building on site of Old Probate building, Court sq.

Chicopee, Mass.—Following are lowest bids opened May 8 by School Bd. for erecting the addition to the high school: General construction, Sarubbi Constr. Co., Springfield, $50,874; plumbing, J. J. Cotter, Springfield, $4,990; heating, Holyoke Supply Co., $8,965; electric work, Gregg & Thurston, Springfield, $2,653.

New bids desired until 8 p. m., May 24 by School Com. (J. G. Gray, Chmn.) for erecting above addition, not including heating, plumbing and electrical work.

★**New Haven, Conn.** — Contract for erecting the Abraham Lincoln School on Shelton Ave. awarded to J. N. Leonard Co., 902 Chapel St., at $50,950. Next three lowest bidders: Chas. W. Murdock, $51,961; Dowling & Bottomley, Bridgeport, $52,636; Lewis A. Miller, Meriden, $53,219.

Batavia, N. Y.—Taxpayers have authorized Bd. Educ. to have plans prepared for a new high school.

Beacon, N. Y.—John M. Voss, of Yonkers, reported to have submitted the lowest bid for erecting the high school, at $42,440.

Brooklyn, N. Y.—Governor has approved the bill appropriating $200,000 for enlarging the L. I. State Hospital.

Gouverneur, N. Y.—Citizens voted in favor of authorizing the Bd. of Educ. to erect a grade school on the East Side site.

Locust Valley, L. I., N. Y.—Taxpayers of School Dist. No. 4, Town of Oyster Bay, approved appropriating $25,000 for an addition to the school.

New York, N. Y.—Following are the 4 lowest bids opened May 13 by Park Bd. (Cabot Ward, Pres.), for erecting (except plumbing and heating) Animal Hospital in Zoological Park, Bronx Boro.: Henry H. Vought, 70 E. 45th St., $15,300; Benedetto, Clark & Nugent, Inc., 423 E. 115th St., $15,925; Wm. H. Egan, 147 E. 125th St., $15,797; Louis C. Frees Constr. Co., Inc., 3029 3d Ave., Bronx, $16,473.

★**New York, N. Y.**—Contract for erecting storehouses and boat shed on Mill Rock, at Hell Gate in East River, N. Y., awarded to Ruggles-Robinson Co., of New York, at $41,133 (bids opened U. S. Engr.'s Office, April 26).

Plans filed for the 8-story, fireproof court house to be erected on Center, Leonard and Baxter Sts. and City Hall Pl. at a cost of $10,000,000. Morgan J. O'Brien, Chmn. Court House Com.; Guy Lowell, Archt., 225 5th Ave.

Potsdam, N. Y.—The Governor has signed a bill appropriating $600,000 for rebuilding the old portion of the Normal School.

Rochester, N. Y.—Bids desired by Bd. Educ. until June 1 for erecting a 1, 2 and 3-story (irregular) school. Probable cost, $200,000. Gordon & Madden, Archts., Sibley Bldg.; A. Crocker, Engr., Mechanics' Institute.

Troy, N. Y.—Plans being prepared by Lawlor & Haase, 59 Wall St., New York, for a dining hall and dormitories to be erected at 15th Ave., Ave. D and the Campus of the Rensselaer Polytechnic Inst., at a cost of about $50,000.

Atlantic City, N. J.—Reported bids about to be asked by Bd. Educ. for erecting 3-story brick, concrete and stone addition and also for alterations to school according to plans by Stout & Riebenack, Atlantic City; cost $150,000.

Hackensack, N. J.—Plans for an addition to Bergen County Jail, fireproof, brick, limestone and reinforced concrete and contain 70 cells, are to be prepared by Haenke & Sherman, 15 Broad St., New York. Chas. N. Cumberland, Chmn. Bldg. Com.

Kearny, N. J.—Bids desired June 2 by Bd. Educ. (Geo. Alexander, Pres.) for alterations and additions to School No. 7, Spruce and Hickory Sts., including masonry, carpentry, heating, ventilating, etc.; also for similar work at School No. 2, Kearny and Johnson Aves. Clinton P. Baldwin, Archt., 45 Clinton St., Newark.

★**Northfield, N. J.**—Co. Bd. Freeholders has awarded contract for erecting tuberculosis hospital here to John Mathis & Sons, of Atlantic City; cost, $40,000.

Toms River, N. J.—Plans prepared by Jacob C. Delatush, Red Bank, for an addition to the court house, costing $25,000. Address Bd. Freeholders.

Trenton, N. J.—Bids will be received about June 15 by State House Comn. at Trenton, for the erection of the proposed State Hospital for Criminal Insane; it will be 3 stories high, 35 x 200 ft. of brick and reinforced concrete and cost $50,000. Geo. S. Drew, State Archt., Trenton.

Vineland, N. J.—Plans being prepared by Geo. S. Drew, State Archt., Trenton, for a stone, brick and concrete dining rooms and dormitory to be erected here for the State Hospital for Feeble-Minded; cost $50,000 and $40,000, respectively. Bids will be received in about 6 weeks by Dr. Madeline Hallowell, of Vineland.

Allentown, Pa.—Reported bids desired June 23 by School Bd. for erecting the Moser school building in the 14th Ward, according to plans by Ruhe & Lange, 10 N. 6th St. Cost complete about $100,000.

Plans for the heating, ventilating and electric work for the above school are to be prepared by Runyon & Carey, of Newark.

Erie, Pa.—Bd. Educ. is reported taking steps to erect a high school in South Erie, costing $300,000.

★**Hanover, Pa.**—Contract awarded to Herman Mialander of Wilkesbarre for erecting the 8-room addition to the Lee Park High School and alterations to the present building for Hanover Township School Bd., at $58,852. Next three lowest bidders: E. T. Long & Co., $57,750; Kehoe & Mowery, $60,128, and F. W. Eddy, $60,998.

Harrisburg, Pa. — Plans being prepared by Zantzinger, Berle & Medary, 15th and Walnut Sts., Philadelphia, for a 3-story, brick, 34 x 112 ft. dormitory to be erected for Harrisburg Academy.

Lebanon, Pa.—A. A. Ritcher, of Reading, engaged by Bd. School Directors to prepare plans for the high school which is to cost $140,000.

Mahoningtown, Pa.—Reported bids desired June 8 by Secretary Bd. Educ. for erecting the school to cost $70,000.

Pittsburgh, Pa.—Reported bids will be asked about June 1 for erecting addition, brick and terra cotta to the Sisters of Charity Hospital, according to plans by Edw. B. Lee, Pittsburgh Bank for Savings Bldg.; cost $125,000.

Reported bids for erecting the joint city and county building will soon be asked by the Joint Committee. Jas. L. Stuart, Engr. in charge, Oliver Bldg.

★*Items marked thus give the names of parties awarded contracts.*

★**Punxsutawney, Pa.** — Contract for erecting Memorial Training School on N. Jefferson St. awarded to Jas. K. Long & Son, Punxsutawney; plumbing, Punxsutawney Hardware Co., and heating, to Geo. C. Brown.

Youngwood, Pa.—Citizens voted $30,000 bonds to erect a high school. J. H. Harman, of Uniontown, Archt.

Bids desired until June 1 by School Bd. (Walter H. Brown, Secy.) for erecting a 10-room brick, stone and terra cotta high school. John H. Harmon, Archt., First Natl. Bank Bldg., Uniontown.

Washington, D. C.—Bids desired until July 13 by Jas. A. Wetmore, Acting Superv. Archt., Washington, D. C., for construction of the building, Interior Department Offices, Washington, D. C. The building is approximately 680,000 sq. ft., occupying a site approximately 400 x 400 ft., 7-stories and basement, having face brick and limestone facing. Contractors may estimate upon the construction including mechanical equipment (except elevators); construction, except mechanical equipment and elevators; mechanical equipment only (except elevators) or the elevators.

Richmond, Va.—Bids desired until May 24 by the School Bd. (C. P. Walford, Clk.), to furnish material and erect Ginter Park School, Chamberlayne Ave., Maury School Annex, 17th St., and alterations and addition to Franklin School, Midlothian Turnpike.

Roanoke, Va.—Lowest bid for equipping the new jail was submitted by Pauly Jail Bldg Co., St. Louis, at $25,318, for work complete.

★**Grafton, W. Va.**—Contract for erecting the high school (bids opened May 5) awarded to Roche-Bruner Bldg. Co., Cincinnati, O., at $74,662; heating and ventilating to Columbus Htg. & Ventilating Co., Columbus, at $7,000. W. M. Watkins, Secy. Bd. Educ.

★**Ft. Pierce, Fla.**—Contract awarded May 4 by County Bd. Public Instructions at Ft. Pierce for erecting a 2-story brick school to A. F. Sanders; cost $25,000. F. H. Trimble, Archt., Fellsmere.

Orlando, Fla.—Carl Jansen, City Clk., writes it is not proposed to erect city hall here, as recently reported.

Tampa, Fla.—Bd. Trade, City Council and Co. Comrs. reported to be considering erecting combined armory, city market and convention hall costing $75,000.

★**Alabama.**—State Normal School Bd., Montgomery, has awarded contracts as follows for erecting dormitories at Normal Schools: To W. H. Nunnelly, of Jacksonville, for Jacksonville Normal School; R. V. Le Barre, Birmingham, Troy School, and W. L. Conton, Bessemer, for Livingston Normal School.

Laurel, Miss. — $60,000 improvement bonds are to be issued, to be used as follows: $25,000 for school improvements; $15,000 municipal water works and new mains $10,000 for sewer improvements, including storm sewers.

★**Knoxville, Tenn.**—Contract for erecting the Lawson McGhee Library awarded to Thomas & Turner at $49,000.

Louisville, Ky. — Bids desired by Bd. Educ. (S. D. Jones, Bus. Dir.) until June 4 for erecting a brick and concrete school, to cost $65,000. Architect J. Earl Henry, Louisville.

Brookville, O.—Bids desired until June 5 by Bd. Educ. (G. M. Grau, Clk.), for furnishing material and labor (with the exception of the excavating and common concrete work) and erecting the Brookville School. F. J. Hughes & Co., Archts., U. B. Annex, Dayton.

Cedarville, O.—School bonds amounting to $75,000 have been sold. Address Bd. Educ., Cedarville Township.

Cleveland Heights, O.—School Bd. has accepted the plans of Franz C. Warner and John H. Graham, Hippodrome Bldg., Cleveland, for the school to be erected on Lee and Fairfax Roads; cost $75,000.

Duvall, O.—Bids desired until May 27 by Bd. Educ., Harrison Township (Herman Reid, Clk) for erecting a brick school. E. H. Rickett, Archt., 274 E. 12th St., Columbus.

Duvalls, O.—Press reports state bids will be received until May 27 by Architect E. H. Ricketts, 274 E. 12th St., Columbus, for erecting a centralized school at Duvalls.

Hamilton, O.—Bids desired until June 9 by W. W. Crawford, Co. Aud., for furnishing material and erecting an addition to the Butler County Tuberculosis Hospital, near City of Hamilton. Geo. W. Barkman, Archt., Hamilton.

Marion, O.—Bids desired until June 3 by Bd. Educ., Pleasant Township, Marion (G. E. Waddell, Clk.), to furnish material and erect a brick and stone school. Marriott, Allen & Hall, Archts., 20 E. Broad St., Columbus.

New Paris, O.—Reported plans being prepared by Frank L. Packard, Columbus, for $50,000 school to be erected here.

Rutland, O.—R. Z. Dawson, of Columbus, is reported preparing plans for a high school to be erected here at a cost of $30,000.

Toledo, O.—Bids desired until June 14 by Bd. Educ. for alterations and additions to the Chase and Wayne schools. Geo. L. McKesson, Dir. Schools.

Vienna, O.—Bids desired until June 7 by W. M. Griffis, Clk. Bd. Educ., to furnish material and erect a 6-room brick and fireproof centralized school. Kling & Zenk, Archts., 115 W. Federal St., Youngstown.

Warrensburg, O.—Plans being prepared by Smith, Rea & Lovitt, Kansas City, Mo., for construction of Main building, science hall, etc., for Warrensburg Normal School and Training Bldg.

Wilmington, O. — Bids desired by County Comrs. (Harry Gaskell, Co. Aud.) until June 1 for the purchase of $300,000 bonds, to be used for constructing a stone court house and jail, from plans of Weber, Werner & Adkins, of Cincinnati.

Bids reported desired until May 27 by E. M. Hadley, Clk. Bd. Educ., for erecting a 2-story and basement school. Probable cost, $25,000. Weber, Werner & Adkins, Archts., Mercantile Library Bldg., Cincinnati.

Woodsfield, O.—Bids desired until June 1 by Bd. Educ. (F. W. Pollock, Clk) for $50,000 high school bonds.

★**Woodstock, O.**—Contract awarded to A. R. Filson & Son, of Bellefontaine, and Patk. Heatherman, of Urbana, at $27,983 for erecting the school.

Connersville, Ind.—Bids desired by Jasper L. Kennedy, Co. Aud., until June 16, for erecting a county infirmary; the building will be of 2 stories, brick and contain 52 rooms with heating plant; estimated cost $25,000. W. H. Garnes, Comr.

★**Elkhart, Ind.**—Contract for erecting the municipal building awarded to Grant B. Bushnell of Elkhart at $72,514. Plumbing, Dreves Bros., Elkhart, $3,306

Lowest bid received for the heating was from Lige Htg. & Ventilating Co., of Auburn, at $4,325.

Kendallville, Ind.—Reported all bids received and opened recently for erecting the high school have been rejected by the School Bd. as they exceeded the amount available.

New Albany, Ind.—Following are four lowest bids opened May 8 by Superv. Archt., Washington, D. C., for erecting an extension to the U. S. Post Office: Jas. Fred Beggs, Scottsburg, Ind., $66,430; R. P. Farnsworth & Co., Owensboro, Ky., $67,675; Hiram Lloyd Bldg. & Contr. Co., St. Louis, Mo., $67,927; Algernon Blair, Montgomery, Ala., $68,444.

Onward, Ind.—Bids reported desired until June 4 by A. G. Coblentz, Trustee, Onward, for erecting 2-story and basement Township High and Grade School at Onward. Probable cost, $40,000.

Portland, Ind.—Laughlin & Hulsken, of Lima, O., selected to prepare plans for the $275,000 stone court house.

Ann Arbor, Mich.—Legislature is reported to have appropriated $350,000 for additions to the Univ. of Michigan Library.

Brown City, Mich.—Citizens voted $35,000 bonds for erecting a school.

★**Grand Rapids, Mich.**—Contract for erecting 2-story nurses' dormitory for Soldiers' Home awarded by Bd. Mgrs. to Strom & Johnson Constr. Co., Grand Rapids; cost $25,000. Wm. M Clarke, Metz Bldg.

An armory costing $120,000 is to be erected for the battalion, Michigan Natl. Guard. Maj. Earl R. Stewart may be able to give further information.

Marquette, Mich.—John D. Chubb, of Chicago, Ill., reported to be architect for high school which Bd. Educ. contemplates erecting.

Rock Island, Ill.—Bids desired by H. B. Hubbard, Co. Clk., until June 3, for erecting 3-story brick and reinforced concrete jail, 41 x128 ft., to cost $75,000. Separate bids wanted on general construction, plumbing and heating, electric wiring and steel cell work. Architect, Cyrus D. McLane, Robinson Bldg., Rock Island.

Milwaukee, Wis.—Bids reported desired until May 27 by Bd. School Dirs. (Frank M. Harbach, Secy.), to erect an addition to Hopkins St. School.

★**Milwaukee, Wis.**—Contracts awarded May 6 for erecting municipal hospital as follows: Concrete masonry and carpentry, Hansen Constr. Co., 2449 Sycamore Ave., $34,685; lathing and plastering Ernst Jahn, 908 Burleigh St., $7,472; cast and wrought iron, C. Hennecke Co., 1353 N. Pierce St., $4,036; painting and glazing, Peter A. Johnson, 326 25th Ave., $2,284; galvanized iron and tin, Alex. G. Goethal, 818 Winnebago, $2,310; cut stone, John Wilce, 223 16th St., $1,970.

Racine, Wis.—Bids desired until May 25 by L. A. Hansche, Clk. School Bd., Mt. Pleasant Dist. No. 9, for erecting a graded school. Chandler & Parks, Archts., Racine.

Tomah, Wis.—Bids desired until June 8 by Cato Sells, Comr. Indian Affairs, Dept. Interior, Washington, D. C., for erecting a brick employees' quarters, Tomah Indian School.

Council Bluffs, Ia.—Bids desired until May 29 by Bd. Directors Independent School Dist., to furnish material and erect an addition to 8th Ave. School, 8th Ave. and 15th St. F. E. Cox, Archt., Baldwin Blk.

Manila, Ia.—Bids reported desired until June 7 by Secretary School Dist., to erect a 3-story, 120x74 ft. school. Probable cost, $45,000. Trunk & Gordon, Archt., St. Joseph, Mo.

Manly, Ia.—Bids reported desired until May 29 by Bd. Educ. (J. F. Schulte, Pres.) for heating a high school. Separate bids desired for ventilating, heating and plumbing. Jeffers & Broaten, Archts., First Natl. Bank Bldg., Mason City.

Missouri Valley, Ia.—Bids reported desired until May 28 by Bd. Dirs. Independent School Dist. (J. S. Dewell, Secy.) for erecting a high school. Probable cost, $70,000. F. E. Colby, Archt., Sioux City.

Albert Lea, Minn.—Bids desired until June 1 by Fred Tavis, Co. Aud., for erecting a county jail, including general work, jail work, heating, plumbing, etc.

Alexandria, Minn.—Bids desired until May 28 by Bd. Educ. Independent School Dist. No. 2 (H. E. Leach, Chmn.) for furnishing material and erecting brick high school. E. F. Bromhall, Archt., Alworth Bldg., Duluth.

Carlton, Minn.—Bids desired June 1 by Bd. Educ. Independent School Dist. No. 2, at Carlton (Jas. McFarland, Secy.), for erecting a brick and high grade school. E. F. Broomhall, Archt., 710 Alworth Bldg., Duluth.

Crosby, Minn.—Plans for brick high school are to be prepared by E. F. Broomhall, of Duluth. First unit is to cost about $100,000; structure complete about $200,000.

Hayfield, Minn.—Bids reported desired until May 25 by Bd. Educ. (Geo. P. Hagen, Secy.) for erecting a 2-story and basement, 100 x 136 ft., high school for Independent School Dist. No. 69. C. Howard Parsons, Archt., Phoenix Bldg., Minneapolis.

Proctor, Minn.—Vernon J. Price & Co., of Duluth, preparing plans for proposed high school.

St. Paul, Minn.—City officials reported to be considering the erection of a modern school on the site of the Lafayette School.

Bids desired until June 1 by State Bd. Control, St. Paul, for erecting a tuberculosis sanitarium for counties Beltrami, Hubbard and Koochiching, including general construction, mechanical equipment, and deep well. Sund & Dunham, Archts., 514 Essex Bldg., Minneapolis; Rose & Harris, Engrs., Minneapolis.

★**Aberdeen, S. D.** — Contract was awarded May 14 for erecting new east wing and alterations to main building at Northern Normal and Industrial School, from plans of J. W. Henry, of Aberdeen, to S. W. Jonason Co., of Aberdeen, at $56,945. Next 3 lowest bids: Gray Constr. Co., Watertown, $61,995; Geo. W. Stiles Constr. Co., Chicago, $62,586; Wold Constr. Co., Brookings, $67,954. Irwin D. Aldrich, of Bigstone City, Secy. Regents of Educ.

Billings, Mont.—Plans being prepared by G. McAllister, Billings, for four brick schools for School Dist. No. 24, to cost $50,000.

★**Rollo, Mo.**—Contract awarded May 3 for erecting high school to Chas. Cunliff, of St. Louis, Mo., at $21,244. E. H. Roach, Secy. Bd. Educ.

Bryan, Tex.—Following are four lowest bids opened May 12 by Superv. Archt., Washington, D. C., for construction complete of the U. S. Post Office at Bryan: Limestone, (a) stucco faced, (b) brick faced: H. D. Brown & Co., San Antonio, (a) $36,927; (b) $37,808; Geo. A. Shaul, Seneca, Kan., (a) $36,920; (b) $39,420; Algernon Blair, Montgomery, Ala., (a) $35,352; (b) $37,137; T. B. Hubbard, Bryan, (a) $37,005; Kreipke-Schafer Constr. Co., El Reno, Okla., (a) $37,000.

Corpus Christi, Tex.—Following are four lowest bids opened May 11 by Superv. Archt., Washington, D. C., for constructing U. S. Post Office: (a) light colored Texas limestone; (b) other than Texas limestone: P. T. Shields, San Antonio, (a) $129,850; M. Yeager & Son, Danville, Ill., (a) $129,747; (b) $126,747; Barnes Bros., Logansport, Ind., (a) $129,000; (b) $119,000; John G. Unkefer & Co., Minerva, O. (b) $125,197; W. D. Lovell of Minneapolis, Minn., and R. P. Farnsworth & Co., Owensboro, Ky., bid the same on (b), $128,000.

Ft. Sam Houston, Tex.—Bids desired until June 4 by Constructing Q. M., Ft. Sam Houston, for officer's quarters at this post, advertised in Engineering Record.

Enid, Okla.—Plans being prepared by Roy Shaw, of Enid, for 2 brick buildings to be erected at Oklahoma Inst. for Feeble Minded in east part of city; cost $25,000 each. Dr. Kendall, Supt.

Ft. Sill, Okla.—Bids desired until June 15 by Constructing Q. M., Ft. Sill, for erecting buildings at this post, advertised in Engineering Record.

Newport, Wash.—Co. Comrs. will soon ask bids for erecting a court house costing $27,000.

Grants Pass, Ore.—E. J. Coburn, Co. Clk., writes all bids opened May 5 for erecting courthouse have been rejected, and the County Comrs. will in the fall ask for an additional appropriation. Following are lowest bids received: General construction, John Almeter, $62,253; heating and plumbing, Theo. M. Barr, $4,488 and $3,100 respectively.

Alameda, Cal.—R. C. Bosshard, City Clk., writes citizens voted May 11 to issue bonds for schools.

Berkeley, Cal.—City Council has adopted plans for a school to be erected at Rose St. and Shattuck Ave., at a cost of $40,000.

LaJolla, Cal.—Miss Ellen Scripps has donated $50,000 with which to erect a dormitory at the school for girls here. Address Commission of the Bishop's Schools, La Jolla.

Los Angeles, Cal.—Bids desired by Wm. A. Sheldon, Secy. Bd. Educ. for erecting following schools:

Until May 27, school at 839 W. 42d St., and school at Fern Pl. (Rose Hill site).

Until May 29, Clifford St. School, 2147 Clifford St.

★**Puente, Cal.**—Contract for erecting the buildings for the Union High School awarded to Weddle & Herrington, of Los Angeles; heating and vacuum cleaning, to Hoagland & Larkin, Los Angeles, and plumbing, H. P. Gerckens, of Puente; cost about $50,000.

San Francisco, Cal.—Bd. Wks. requested Bd. Superv. to order construction of Juvenile Detention Home on Otis St., cost $150,000; L. C. Mulligardt, Chronicle Bldg., Archt.; 2 fire department buildings, Ward & Blohme, Alaska Commercial Bldg., Archts., one on Powell St., cost $41,000, and the other on Post St., cost $30,000.

★**San Fernando, Cal.**—Contracts for erecting the 3 buildings at the San Fernando High School awarded as follows: 2-story auditorium and 1-story mechanics' arts building awarded to John Mulder, of Los Angeles, and 2-story science hall to Geo. C. Condon, of Los Angeles. The cost of the three buildings will be about $100,000. John C. Austin, Archt., Los Angeles.

★**Salt Lake City, Utah.**—Following are four lowest bids opened May 8 by Bd. Educ. for erecting the elementary grade school on 13 E. and 7th sts.: J. F. & H. E. Schraven, Salt Lake City, $61,636 (awarded contract); Rudine & Co., $62,950; West & Thornton, $64,749; Jas. Stewart & Co., $65,710. L. P. Judd, Clk., Bd.

Whitby, Ont.—Bids reported desired June 1 by W. Grayson Brown, Archt., 204 Clyde Blk., Hamilton, for erecting a school; also for an addition to the high school.

PRIVATE BUILDINGS.

Items Arranged Geographically

Portland, Me.—F. W. Cunningham & Sons Co. will erect an apartment house on Carroll St. to cost $30,000. John Howard Stevens, of Portland, Archt.

Rutland, Vt.—Plans being prepared for a 4-story brick fireproof lodge building which the Eagles propose erecting on Wales St.

★**Springfield, Mass.**—Edw. Radding has contract for erecting 1-story garage on Columbia Terrace for Stoddard Motor Car Co.; cost $32,000. B. E. Gechler, Archt.

Plans prepared by F. M. Knowlton for a 4-story apartment house to be erected for H. F. Holcomb.

Providence, R. I.—Plans completed by Jackson, Robertson & Adams, Turk's Head Bldg., for a brick church, 48 x 125 ft., to be erected on Hayes St. for the Swedish Lutheran Church.

Plans being prepared by Walter F. Fountaine, Woonsocket, for a brick and stone church to be erected on Dexter St. for St. Charles R C. Church. Rev. Raymond Plasmaus, Rector.

Buffalo, N. Y.—Esenwein & Johnson, 775 Ellicott Sq., are reported architects for the Labor Temple which it is planned erecting in this city by the organized laboring men affiliated with the Central Trade Council.

Reported International Ry. Co. (H. C. Young, Supt. Bldg. & Bridges, 857 Main St.) plans erecting a 10-story business and office building on Pearl and Niagara Sts.

Long Beach, L. I., N. Y.—Plans completed by Kirby & Petit, 103 Park Ave., New York, for a 7-story addition to be erected to the Hotel Trouville, Boardwalk, at a cost of $100,000.

Long Island City, L. I., N. Y.—Plans being prepared by Franklin Hawley Kanes, 154 Nassau St., New York, for two 5-story reinforced concrete loft buildings to be erected on Webster Ave. for Mrs. Annie S. Annable, of Bay Head, N. J.

Middletown, N. Y.—Preliminary plans being prepared by D. H. Canfield, Argus Bldg., for a 5-story bank and office building to be erected at North and King Sts. for the Merchants Natl. Bank; cost about $100,000.

★*Items marked thus give the names of parties awarded contracts.*

New York, N. Y.—The Society for the Relief of the Destitute Blind, Amsterdam Ave. and 104th St., has had plans prepared for new buildings, which are to be erected at Grand Boule. and Concourse, 193d St. and Creston Ave.

Plans filed for the following buildings: 12-story fireproof apartment house at 676 Riverside Drive, Paterno & Son Contr. Co., 128 Convent Ave. owners, Adolph E. Nast, Archt., 546 5th Ave.; 5-story brick tenement at Bway. and Ellwood St. For Haven Constr. Co., cost $75,000, Benj. W. Leitan, Archt., 20 W. 31st St.; 5-story brick tenement at Vermilyea Ave. and Hawthorne St., for Becker Realty Co., cost $40,000, Sass & Springsteen, Archts., 32 Union Sq.; two 5-story brick tenements at 642 and two 5-story brick tenements at 630 W. 172d St. for Raymond Constr. Co., cost $350,000, Sommerfeld & Steckler, Archts., 31 Union Sq.; 5-story fireproof club house at 106 W. 48th St. for Friars Club, cost $130,000, Harry Allan Jacobs, Archt., 320 5th Ave.; 2-story brick synagogue at Stebbins Ave. and 103d St. for Sinai Congregation of the Bronx, cost $75,000, Sommerfeld & Steckler, Archts., 31 Union Sq.; 5-story brick tenement on Bryant Ave. and 165th St. for Reich Bldg. Co., cost $65,000, Wm. Koppe, Archt., 830 Westchester Ave.; 5-story brick tenement at Walker Ave. and Montgomery St. for Luigi Astorino, cost $50,000, Henry Nordheim, Archt., 1087 Tremont Ave.; two 5-story brick tenements at Southern Boule. and Jennings St. for Soward Bldg. Co., cost $100,000, Harry T. Howell, Archt., 3d Ave. and 149th St.; two 5-story brick tenements at 184th St. and Grand Concourse for Wicklow Bldg. Co., cost $100,000, Kreymborg Architectural Co., Archts., 1029 E. 163d St.; two 5-story brick tenements at Briggs Ave and 197th St. for J. H. M. Constr. Co., cost $90,000, Goldner & Goldberg, Archts., 391 E. 149th St.; 5-story brick tenement at Fulton Ave. and 167th St. for Esther Realty Co., cost $70,000, Goldner & Goldberg, Archts., 391 E. 149th St.; two 5-story brick tenements at Sherman Ave. and 163d St. for Edw. J. Byrne Constr. Co., cost $70,000, Edw. J. Byrne, Archt. and Pres., 148th St. and Willis Ave.

★Contract for alterations and additions to the St. Cyrilius and Methodium Catholic Church at 552 W. 50th St. awarded to Clark & Appelman, 419 E. 16th St. Fredk. J. Schwartz, Archt.

★Contract awarded to Underpinning & Foundation Co., 290 Bway., for foundation work at 302 5th Ave. to consist of Standard Hercules steel piles. Geo. & Edw. Blum, Archts., 505 5th Ave.

Contracts awarded to Raymond Con-Crete Pile Co., 140 Cedar St., for following work:

Placing concrete piles in foundation for Church of St. Gregory, Brooklyn. Frank J. Helmle, Archt., Brooklyn.

Concrete piles in foundations for new Syria Temple, Pittsburgh, Pa. Huehl, Schmid & Holes, Archts.; Golden & Crick, General Contractors, Pittsburgh.

Concrete piles in foundation for new reinforced concrete warehouse for P. H. Butler Co. at 17th and Pike Sts., Pittsburgh. Hunter Davis Co., Archts. & Engrs.

Niagara Falls, N. Y.—C. H. Phelps, Gluck Bldg., is architect for the Epiphany Church to be erected on Main and Lockport Sts.; cost $30,000.

Rochester, N. Y.—R. T. Ford, Rochester, it is reported, will erect a fireproof, steel, brick, stone and concrete men's hotel at Elm and Chestnut Sts., costing $250,000.

Syracuse, N. Y.—Gaggin & Gaggin, University Bldg., are architects for the 5-story 60x165 ft. Masonic Temple which is to be erected here on Montgomery St., brick, stone and steel construction and costing $200,000. Masonic Temple Assoc., Inc. (W. F. Conough, Pres., 601 Kirk Bldg.), owners.

Newark, N. J.—Plans completed by Nathan Welitoff, 222 Washington St., for a 4-story brick and limestone apartment house to be erected at 640 High St. by Modern Home Constr. Co. Cost, $55,000.

★**Harrisburg, Pa.**—Contract for erecting John Y. Boyd Memorial Building in connection with the Pine St. Presbyterian Church, awarded to Titzel Constr. Co., of Lancaster; cost $25,000.

Hazleton, Pa.—Plans about completed by Geo. Schroeder, Markle Bldg., for 1-story brick and stone synagogue to be erected at a cost of $35,000.

Mt. Carmel, Pa.—Reported bids desired May 24 by Directors Union Natl. Bank for remodeling the old Commercial Hotel, 3d and Oak Sts., making it a 4-story building, according to plans by W. H. Lee, Shamokin, Pa.

Narberth, Pa.—Plans being prepared by And. C. Borzner and M. Maximilian Jahnke, of Philadelphia, for a $50,000 apartment house, which John T. Caldwell intends erecting here.

Philadelphia, Pa.—Plans being prepared by Edgar V. Seeler, Real Estate Trust Bldg., for a 9-story brick, terra cotta and steel addition to office building at Juniper and Filbert Sts., for the "Evening Bulletin."

★Contract reported awarded to Turner Concrete Steel Co., 1713 Sansom St., for erecting an 8-story reinforced concrete steel and brick 80 x 100 ft. loft building at 11th and Brandywine Sts. for Edw. J. Schoettle Co. Day & Klauder, Archts., Philadelphia.

★Contract awarded to Metzger & Fisher, Philadelphia, for erecting a 6-story reinforced concrete store and loft building at 210 S. 13th St., for J. K. Davison's Sons. C. E. Schermerhorn, Archt., 430 Walnut St.

Revised plans being prepared by Horace B. Peterson, 34 S. 17th St., Philadelphia, for 5-story brick and concrete 45 x 75 ft. storage building, to be erected at 38th and Powelton Ave., for Powelton Storage Co.

Pittsburgh, Pa.—Plans being prepared by O. M. Topp, Jenkins Arcade, for an 8-room school for St. Lawrence R. C. Church to be erected at Penn and Atlantic Aves. at a cost of $40,000.

Plans being prepared by John T. Comes, 1005 5th Ave., for a church to be erected in Mission St., south side, for St. Josaphat Congregation. Cost $40,000.

Plans being prepared by Vrydaugh & Wolfe, 347 5th Ave., for a residence and garage to be erected in Morewood Heights for Mrs. Thos. McConnell, Jr., at a cost of $30,000.

★Contract for erecting 10-story, 46 x 73-ft. store and office building at 4th Ave. and Ross St. for Jones & Laughlin Steel Co. awarded to Geo. Hogg Co., Keystone Bldg.

★Contract awarded to A. Richmond & Sons, 541 Wood St., for erecting a brick and hollow tile residence on Morewood Heights for F. I. Merrick, 1007 Empire Bldg.; cost $40,000.

★Contract awarded to Jos. Bergman & Son, 2601 Wylie Ave., for erecting a church and parsonage on Bryn Mawr Rd., Herron Hill, for Schenley Heights Methodist Church; cost $50,000.

Plans completed by D. A. Crone, Oliver Bldg., for a 2-story fireproof building to be erected for the Iron City Laundry Co. at Rose and Dinwiddie Sts., to cost $25,000.

Reported bids will soon be asked by H. E. Kennedy, Archt., Home Trust Bldg., for erecting the Liberty Theater, on Penn Ave., for Nicola Land Co.; also for a movie theater to be erected on Mount Washington for Henry Polk.

Tentative plans under consideration for the enlarging of the Columbus Club, 5th and Bellefield Aves.

Baltimore, Md.—Plans are to be prepared by Geo. R. Callis, Jr., 55 Knickerbocker Bldg., for twin apartment houses to be erected by the Chauncey Apartments Co., at Chauncey Ave., near Linden St., of brick and stone, costing $75,000.

Wilmington, Del.—Plans being prepared by John J. Kennedy, Ford Bldg., for alterations to 1-story brick and stone club house for Knights of Columbus. Cost, $30,000.

Topkis Bros., Wilmington, propose erecting at 5th and Market Sts. a 5-story theatre and office building. Hoffman Co., Philadelphia, Pa., Archts.

Washington, D. C.—Reported bids desired May 29 by Chas. Bolton & Sons, Archts., Witherspoon Bldg., Philadelphia, Pa., for erecting a 1-story and basement brick and terra cotta and reinforced concrete church for St. Andrews Episcopal Church.

★**Morgantown, W. Va.**—Contract for erecting the Masonic Temple for Union Lodge No. 4, A. F. & A., awarded to Jas. A. Johnson, Uniontown, at $23,514.

Parkersburg, W. Va.—Reported plans prepared for a 3-story brick and stone building which Walker & Hiteshew propose erecting on Main St.

Charleston, S. C.—Reported bids desired June 1 for erecting the 12-story 250-room hotel on Hasell and Meeting Sts., according to plans prepared by W. Albert Swasey, 47 W. 34th St., New York.

Memphis, Tenn.—Plans being prepared by Hubert F. McGee, 1304 Tenn. Trust Bldg., for a 1-story building to replace the Lockwood Garage, to cost $35,000.

Plans prepared for a $30,000 building, stores and flat to be erected by Geo. Forrest at Monroe Ave. and Lauderdale St.

Cincinnati, O.—Plans being prepared by Harry Hake, Cincinnati, for a 5-story business building which Ray K. Barlow & Co. propose erecting at 5th and Sycamore Sts.

Columbus, O.—Revised tentative plans being prepared by Frank L. Packard of Columbus for an 8 or 10-story traction terminal which it is proposed erecting on Front, Rich and Town Sts.; cost reported at $1,000,000.

★**Warren, O.**—Contract for erecting First Methodist Church awarded by Bldg. Com. to Warren General Constr. Co., Warren, at $43,000.

Coldwater, Mich.—Harvey Truax, prop. of the Arlington Hotel, intends erecting a 4-story hotel on S. Monroe St., to be brick and limestone and fireproof. A. H. Ellwood & Son, of Elkhart, Ind., Archts.

Rochester, Mich.—Red Run Golf Club members propose erecting a 2-story building costing $50,000.

Chicago, Ill.—Reported construction is to begin within a month on the 19-story $1,000,000 Y. M. C. A. hotel at 818 So. Wabash Ave. R. C. Berlin, 19 S. La Salle St., Chicago, Archt., and Jas. Gamble Rogers, 470 4th Ave., New York, N. Y., Consulting Archt.

Madison, Wis.—Union Transfer & Storage Co., E. Wilson St., intends erecting a 7-story fireproof reinforced concrete building.

Milwaukee, Wis.—Permit issued for 4 additional stories to be added to the building of the Johnson Soap Co. on Clybourn and 5th Sts. of reinforced concrete and cost $60,000.

Milwaukee Bldg. & Traction Co. Inc., will erect an apartment house on 21st St. and Grand Ave. Cost $140,000. Martin Minard and Herbert Tullgren, incorporators.

Tipton, Ia.—The I. O. O. F. are preparing plans for an opera house at Tipton.

Arlington, Minn.—Bids desired May 25 by Paul Roehler, Pres. for erecting a brick church near residence of Rev. M. F. Abraham, R. R. No. 1, Arlington. Albert Schippel, Archt., Mankato.

Minneapolis, Minn.—Abe Frankel and C. C. Taft, of Des Moines, Ia., propose erecting at 622 Hennepin Ave. a moving picture theatre, costing $50,000.

★**Windom, Minn.**—Contract awarded to Nelsen Constr. Co. for erecting a bank building for the First Natl. Bank; cost $50,000.

Manhattan, Kan.—All bids opened May 10 by H. B. Winter, Archt., Manhattan, to erect an edifice, 82 x 100 ft., for the Presbyterian Church have been rejected, and new bids will be received.

St. Louis, Mo.—Plans prepared for a 1-story steel and concrete dairy plant for the Steinlage Sanitary Milk Co. on Florissant Ave. at a cost of $50,000.

Oklahoma City, Okla.—Plans being prepared for a vaudeville theatre costing $50,000, which it is proposed erecting at 23 N. Robinson Ave. Kauffman Investment Co. is interested.

★**Seattle, Wash.**—Contract for erecting the Coliseum Theatre at 5th Ave. and Pike St., 9-story steel frame and reinforced concrete and terra cotta, has been awarded to Pearson Constr. Co., N. Y. Blk., at $141,400 (180 days). Next three lowest bids: Brandt Constr. Co., 2327 5th Ave., $141,377 (250 days); Sound Constr. Co., Lowman Bldg., $143,000 (220 days); Hendrickson Constr. Co., New York Blk., $143,150 (210 days).

Lee H. Wakefield, Pres. Apex Fish Co., Anacortes, will erect an apartment house at 5th Ave. and Lenora St. to cost $60,000.

Portland, Ore.—Samaritan Lodge I. O. O. F. has secured site at 10th and Salmon Sts. on which it is reported an 8-story lodge and business building is to be erected.

★Reported contract for furnishing steel needed in the Coliseum Theater has been awarded to Northwest Steel Co., Portland, at $25,000.

Plans completed, according to reports, by Whitehouse & Fouilhoux, Wilcox Bldg., for a 3-story and basement 100 x 200 ft. reinforced concrete and mill constructed warehouse, to be erected on the East Side for Settlers Box Co.; cost $50,000.

★**Pomona, Cal.**—Contract for erecting brick hotel costing $65,000 at 3d St. and Garey Ave. has been awarded to Milwaukee Bldg. Co., Los Angeles. Walter M. Avis, Owner.

Sacramento, Cal.—E. C. Hemmings, 1005 K St., is architect for the 4-story office and store building which the Carmichael Realty Co. will erect on 8th and J Sts. of brick and steel; cost $50,000.

NEW INDUSTRIAL PLANTS.

See also "Private Buildings."

Items Arranged Geographically

Portland, Me.—The Maine Cold Storage & Warehouse Co. intends erecting an 8-story, 90 x 200 ft. concrete cold storage plant on Union Wharf.

Howard, R. I.—Bids reported desired until May 27 by State Bd. Control and Supply, Providence, for a cold-storage plant, elevator machinery and equipment for the general storehouse and bakery at Howard. The Richd. D. Kimball Co., Engrs., 6 Beacon St., Boston, Mass.

Beacon, N. Y.—Plans being prepared for a grain elevator, 50 x 250 ft., to be erected on Main St. for Thos. J. Cunningham, 15 E. Main St.

Beacon, N. Y.—Bids desired June 2 by John B. Riley, Supt. Prisons, Capitol, Albany, for refrigeration equipment for storehouse at Matteawan State Hospital, Beacon, advertised in Engineering Record. Lewis F. Pilcher, State Archt., Albany.

Buffalo, N. Y. — Buffalo Corrugated Container Co., 25 Imson St., intends enlarging their factory.

Plans completed for a 2-story, 85 x 100-ft. factory to be erected at Main St. and Lafayette Ave. for the Polson Mfg. Co., 27 Chenango St.; cost $35,000.

Gloversville, N. Y.—Reported bids desired by Hyde & Wood, North Main St., for erecting a 65 x 52-ft. and 29 x 31-ft. "L" shaped addition, 3 stories, to their leather manufacturing plant.

★**Phoenix, N. Y.**—Contract awarded to Fredk. W. Woodcock, Fulton, for erecting a 2-story and basement addition, 48 x 62 ft., to the plant of the Phoenix Toilet Paper Co. Steel contract awarded to Syracuse Eng. Co. N. H. La Vante, First Natl. Bank Bldg., Syracuse, Archt.

Camden, N. J.—W. U. Jury, Shamokin, has about completed plans for 2 plants to be erected by Wm. F. Tauble, Inc., Riverside, N. J., each to be 3-story brick, one in Camden, 50 x 120 ft. and the other in Trenton, 50 x 150 ft.

Harrison, N. J.—Crucible Steel Co., of America, Pittsburgh, Pa., it is reported, intends enlarging plant in Harrison. New buildings to include three machine shops, costing $58,000 ea.; gun shop, $84,600; forge shop, $74,800; power house, $33,600, and substation, $11,070. Work has been started on the foundations. Robt. Illingworth, Supt.

★Contract awarded to Raymond Concrete Pile Co., 140 Cedar St., New York, N. Y., for design and construction of the foundations, tunnels, etc., for the ordinance dept. buildings at the Atha Plant, Harrison, of the Crucible Steel Co. of America.

Ardmore, Pa.—Reported bids being received for erecting a 3-story brick and concrete addition to the factory of the Autocar Co. Stearns & Castor, Archts., Stephen Girard Bldg., Philadelphia.

★**Harrisburg, Pa.**—Contract awarded to F. A. Havens & Co., 845 N. 19th St., Philadelphia, for erecting a 1 and 2 story brick, concrete and steel office building, foundry, pattern shop and shed for W. O. Hickok Mfg. Co.; cost $200,000. Day & Zimmerman, Archts., and Engrs., Philadelphia.

★**Philadelphia, Pa.**—Contract awarded by Peuckert & Wunder, Engrs. & Archts., 310 Chestnut St., to Barclay White & Co., 1530 Chestnut St., for alterations and additions to the plant of the Publicker-Ward Distilling Co., Water St. and Snyder Ave. Buildings to be 1, 2 and 4-story brick, steel and concrete, and cost with equipment about $35,000.

Reedsville, Pa.—Hugo Gottschalk, of Reedsville, is reported interested in company which plans erecting a plant for manufacture of automatic brick ovens patented by Mr. Gottschalk. Plant will probably be erected here.

Highlandtown, Md.—Reported plans being prepared by Geo. R. Callis, Jr., Knickerbocker Bldg., Baltimore, for improvements to the plant of the Sabarese Macaroni Co. at Baltimore and 9th Sts., to cost $50,000, and which will include an additional story to the plant.

J. E. Aldred, Chmn., and Chas. E. F. Clark, Pres. Pennsylvania Water & Power Co., U. S. Fidelity Bldg., Baltimore, have organized the Shawinigan Electro Products Co., and will erect a plant at Highlandtown for the purpose of manufacturing ferrosilicon and calcium carbide.

Canton, O.—The Zahner Metal Sash & Door Co. (J. P. Sidney Morgan, Secy.) intends erecting an addition, including a shop and also an office building.

★**Dayton, O.**—Contract for erecting building at the Delco Plant awarded to A. Butler & Sons Co., of Toledo.

Mansfield, O.—Mansfield Tire & Rubber Co. (Jesse E. LaDow, Secy.) intends erecting a 4-story addition to the plant.

Port Huron, Mich.—Reported Grand Trunk R.R. Co. (S. R. Safford, Ch. Engr., Montreal, Que.) intends erecting car shops here to be 96 x 700 ft.

★**Bettendorf, Ia.**—H. L. Zimmerman, of the Zimmerman Steel Co., of Lone Tree, writes contracts for constructing plant at Bettendorf have been awarded as follows: Structural steel, Morava Constr. Co., Chicago, Ill.; steel sash, David Lupton Sons Co., Chicago, Ill.; roofing, Federal Cement Tile Co., Chicago, Ill.; brick and concrete, McCarthy Improvement Co., Davenport, Ia.; total cost of buildings $65,000 and equipment $25,000 extra. All contracted for. Plant to be in operation in July.

Spokane, Wash.—American Wood Products Co. (H. B. Spear, Secy.), Spokane, will establish a plant for manufacture of automobile using steam turbine power. Initial cost $20,000. Company also intends erecting a plant for reduction of wood products from stumpage, having a capacity of 10 cords per day.

Montreal, Que.—Bids reported desired until June 7 by Harbor Comrs. (F. W. Cowie, Ch. Engr.) for erecting west extension to Grain Elevator No. 1, Harbor of Montreal.

MISCELLANEOUS.

See also "Hydraulic Construction and River Improvements."

Items Arranged Geographically

Locomotive Crane — Boston, Mass.—Bids desired until June 12 at Bureau Yards and Docks, Navy Dept., Washington, D. C. (H. R. Stanford, Ch.), for Spec. 2162, for a locomotive crane for Navy Yard, Boston.

Park Improvement, Etc.—Boston, Mass.—Mayor Curley is said to favor a $100,000 loan order for improvements on Ronan Park, Dorchester, and a $150,000 loan order for completion of Ward 19 playground, near Mission Church, Roxbury.

★Items marked thus give the names of parties awarded contracts.

Equipment for High School—Montclair, N. J.—Bids desired June 3 by Bd. Educ. (Frank J. Taylor, Secy.) for equipment for the high school, including lighting fixtures, etc., advertised in Engineering Record.

Tunnel—Pittsburgh, Pa.—Bids about to be asked by County Comrs. for building a traffic tunnel through Mt. Washington to the South Hills.

Stokers, Coal and Ash Handling Machinery at Power House—Anacostia, D. C.—Bids desired until June 8 by Secy. Dept. of Interior, Washington, D. C., for stokers and coal and ash handling machinery and other appliances for power house of Government Hospital for Insane, at Anacostia, D. C., advertised in Engineering Record.

Elevator—Augusta, Ga.—Bids desired until June 11 by Jas. A. Wetmore, Acting Superv. Archt., Washington, D. C., for installation, complete, of an electric elevator in U. S. Post Office and Courthouse, Atlanta.

Docks, Warehouses, Etc.—Jacksonville, Fla.—Press reports state H. D. Mendenhall is reported to be making surveys for the Coachman - Taliaferro - Cummers interests at Commodore Point for docks, warehouses, freight yards, etc.

★Recreation Center—Cleveland, O.—Contract awarded to Ernest Kroener for recreation center and shelter house for Glenwood Park, at $21,484. Archt., J. A. Jones.

Park Work — Lincoln, Neb.—Citizens voted May 4 to issue $50,000 bonds for park extensions. Adna Dobson, City Engr.

Cement—Seattle, Wash.—Bids desired by King County Comrs. (Byron Phelps, Clk.) until June 7 for furnishing 200,000 bbls. cement to be used by six municipal corporations in King and Pierce Counties. It has been estimated that the contract will approximate $342,000.

Boiler—Seattle, Wash.—Chas. C. Morre & Co., Mutual Life Bldg., Seattle, reported to have submitted lowest bid to the Bd. of Pub. Wks. May 7 for a boiler for the Municipal Auxiliary Steam Plant at Lake Union at $18,475.

★Lumber, Ties, Etc. — Alaska. — Contract reported awarded to J. M. Farrell, 418 Leary Bldg., Seattle, to supply the Alaska Eng. Comn. with 900,000 ft. of mixed lumber to be used by the government railroad commission in Alaska. Contract price about $17,000. Awards on 30,000 railroad ties and miscellaneous hardware have not yet been made.

Crane—Halifax, N. S.—Bids desired until July 1 by J. G. Desrants, Deputy Minister of Naval Service, Dept. of Naval Service, Ottawa, Ont., for furnishing and erecting a 30-ton steam wharf crane, Halifax dockyard.

Power House Improvements—Hull, Que.—Bids desired June 7 by H. Boulay, City Clk., for power house improvements, advertised in Engineering Record. J. P. Albert Laforest, City Engr.

Reinforcing Bars, Etc., Panama.—Bids desired until June 5 by Maj. F. C. Boggs, Corps Engrs., U. S. A., Genl. Purchasing Officer, Panama Canal, Washington, D. C., for Cir. 928—Reinforcing bars, staybolt iron, brass pipe, fittings, etc.

Proposals

For Proposals Advertised see Pages 44, 45 and 46.

WATERWORKS.

Bids Close.		See Eng. Record.
May 25.	C.-I. Pipe, Philadelphia, Pa. Adv. May 1, 8.	**May 1**
May 25.	Water Wks. Plant, Onslow, Ia.	**May 8**
May 25.	Atlantic Highlands, N. J. Adv. May 15, 22.	May 15
May 25.	Pumps, etc., Garnett, Kan.	May 22
May 25.	Pump, Toronto, Ont. Adv. May 22.	May 22
May 26.	Improvements, Albion, N. Y. Adv. May 8.	**May 8**
May 26.	Pipe, etc., Buffalo, N. Y.	May 22
May 26.	Machinery for Water Works, New Smyrna, Fla.	May 22
May 28.	Well, Aurora, Ill.	May 15
May 28.	Extension, Frederick, Md. Adv. May 15.	May 15
May 28.	C. I. Pipe and Gate Valves, Chicago, Ill.	May 22
May 29.	System at Cemetery, Crow Agency, Mont. Adv. May 15, 22.	May 15
May 31.	Pumping Unit, Peterborough, Ont.	May 22
May 31.	System, Madrid, N. Y.	May 22
Jun. 1.	Tank and Tower, Cresco, Ia.	**May 15**
Jun. 1.	Filter Plant, Ridgway, Pa. Adv. May 15, 22.	**May 15**
Jun. 1.	Water Wks., Wallaceburg, Ont.	May 22
Jun. 1.	Pump. Station, etc., Harrison, N. J.	May 22
Jun. 3.	Reservoir, Ipswich, S. D.	May 22
Jun. 2.	Improv. System, Caruthersville, Mo. Adv. May 15.	**May 15**
Jun. 2.	Contract 9, Nepaug Reservoir, Hartford, Conn. Adv. May 15, 22.	**May 15**
Jun. 5.	Improvements to Water Wks., Plant City, Fla. Adv. May 8 to 22.	**May 8**
Jun. 5.	Water Works, Spillville, Ia.	May 22
Jun. 7.	Pipe, Oelwein, Ia.	May 22
Jun. 14.	Intake Pipe, etc., Kenosha, Wis. Adv. May 22.	May 22

SEWERAGE AND SEWAGE DISPOSAL.

May 24.	Ebensburg, Pa. Adv. May 8.	**May 8**
May 24.	Greenwich, Conn. Adv. May 8.	**May 8**
May 24.	Avon, N. Y. Adv. May 15.	**May 15**
May 25.	Wilkes-Barre, Pa. Adv. Apr. 17, May 1, 15.	**Apr. 17**
May 25.	Easton, Md. Adv. May 1, 15.	**May 1**
May 25.	Rittman, O. (2 Prop.) Adv. May 8 to 22.	**May 8**
May 25.	Tripoli, Ia.	May 15
May 26.	Brooklyn, N. Y.	May 15
May 27.	Cleveland, O.	May 22
May 27.	Green Bay, Wis.	May 22
May 27.	Wausau, Wis	May 22
May 28.	Bexley, O.	May 22
Jun. 1.	Wallaceburg, Ont.	May 22
Jun. 1.	New York, N. Y.	May 22
Jun. 1.	West Allis, Wis.	May 22
Jun. 1.	Oswego, N. Y. Adv. May 22.	May 22
Jun. 2.	Caruthersville, Mo. Adv. May 15.	May 15
Jun. 4.	Cleburne, Tex.	May 22
Jun. 7.	Downington, Pa. Adv. May 15, 22.	May 15
Jun. 8.	Beaver Falls, Pa. Adv. May 22.	May 22
Jun. 9.	Struthers, O.	May 8
Jun. 9.	Maplewood, Mo.	May 22

BRIDGES.

May 25.	Indiana, Pa.	May 15
May 25.	Henderson, Ky.	May 15
May 25.	New Orleans, La.	May 22
May 25.	Marlinton, W. Va.	May 22
May 25.	Christiansburg, Va.	May 22
May 25.	Youngstown, O.	May 22
May 25.	Butte, Neb.	May 22
May 26.	Baltimore, Md.	May 22
May 26.	Indiana, Pa.	May 22
May 27.	Reading, Pa.	May 22
May 27.	West Union, Ia.	May 22
May 28.	Canton, N. Y.	May 15
May 28.	Canton, O.	May 15
May 28.	Eastmanville, Mich.	May 15
May 28.	Grand Haven, Mich.	May 22
May 28.	New Martinsville, W. Va.	May 22
May 29.	Bellingham, Wash.	May 22
May 29.	Walkill, N. Y.	May 22
May 29.	DePere, Wis.	May 22
May 31.	Tumwater, Wash.	May 15
Jun. 1.	Lake Charles, La. Adv. May 15, 22.	May 15
Jun. 1.	Cincinnati, O.	May 15
Jun. 1.	Chicago, Ill. Adv. May 22.	May 22
Jun. 1.	Georgetown, Del.	May 22
Jun. 1.	Waterbury, Conn.	May 22
Jun 2.	Jersey City, N. J.	May 22
Jun. 4.	Columbus, O.	May 15
Jun. 4.	Greensburg, Pa.	May 22
Jun. 4.	Harrisburg, Pa.	May 22
Jun. 7.	Louisiana	May 15
Jun. 7.	Zanesville, O.	May 22
Jun. 7.	St. Jo., Tex.	May 22
Jun. 7.	Louisiana	May 22
Jun. 7.	Montezuma, Ia.	May 22
Jun. 8.	Stockton, Cal.	May 22
Jun. 8.	Seattle, Wash.	May 22
Jun. 9.	New Gretna, N. J. Adv. May 22. (2 Prop.)	May 22
Jun. 9.	Hamilton, O.	May 22
Jun. 14.	Ashland, O.	May 22
Jun. 16.	Rome, Ga.	May 22

PAVING AND ROADS.

May 25.	Tuscaloosa, Ala.	May 8
May 25.	Melmore, O.	May 15
May 25.	Ridgefield Park, N. J. Adv. May 15, 22.	May 15
May 25.	Seattle, Wash.	May 15
May 25.	Painesville, O.	May 15
May 25.	Santa Ana, Cal.	May 15
May 25.	New York, N. Y.	May 22
May 25.	Wooster, O.	May 22
May 25.	Columbia, Tenn.	May 22
May 25.	Youngstown, O.	May 22
May 25.	Toronto, Ont.	May 22
May 25.	Aurora, Ill. Adv. May 22.	May 22
May 26.	Illinois.	May 15
May 26.	Illinois.	May 22
May 26.	Delaware, O.	May 22
May 26.	Rhode Island	May 22
May 27.	Jersey City, N. J.	May 22
May 27.	Oconto Wis.	May 22
May 27.	Freehold, N. J.	May 22
May 27.	Towson, Md.	May 22
May 27.	Dayton, Wash.	May 22
May 28.	Hackensack, N. J.	May 1
May 28.	Moundsville, W. Va.	May 15
May 28.	Mt. Gilead, O.	May 15
May 28.	Akron, O.	May 22
May 28.	Wilmington, Del.	May 22
May 29.	Fall City, Neb.	May 15
May 29.	Castle Rock, Wash.	May 22
May 31.	Selma, Ala.	**May 8**
May 31.	Clarksville, Tex. Adv. May 15, 22.	**May 15**
May 31.	Lake City, Fla.	May 22
May 31.	Montesano, Wash.	May 22
Jun. 1.	Albany, N. Y. Adv. May 15, 22.	**May 15**
Jun. 1.	Washington	**May 15**
Jun. 1.	Brainerd, Minn.	**May 15**
Jun. 1.	California.	**May 15**
Jun. 1.	Seattle, Wash.	May 22
Jun. 1.	Newport, Wash.	May 22
Jun. 1.	Tacoma, Wash.	May 22
Jun. 1.	Savannah, O.	May 22
Jun. 1.	Berlin Heights, O.	May 22
Jun. 1.	Columbus, O.	May 22
Jun. 1.	Connecticut.	May 22
Jun. 1.	Lake Charles, La.	May 22
Jun. 1.	New London, Wis.	May 22
Jun. 1.	New York, N. Y.	May 22
Jun. 1.	Los Angeles, Cal.	May 22
Jun. 1.	Macon, Ga.	May 22
Jun. 2.	Bryan, Tex.	May 22
Jun. 2.	Port Townsend, Wash.	May 22
Jun. 3.	Grinnell, Ia.	**Apr. 17**
Jun. 3.	Montclair, N. J. Adv. May 22.	May 22
Jun. 4.	Columbus, O.	May 15
Jun. 4.	Albany, N. Y. Adv. May 22.	May 22
Jun. 4.	Steubenville, O.	May 22
Jun. 7.	Ellensburg, Wash.	**May 8**
Jun. 7.	Hazlehurst, Miss.	**May 1**
Jun. 7.	Arlington, O.	May 15
Jun. 7.	Washington.	May 22
Jun. 7.	Tavares, Fla.	May 22
Jun. 8.	Mt. Vernon, Wash.	May 15
Jun. 8.	Stevenson, Wash.	May 22
Jun. 8.	Noblesville, Ind.	May 22
Jun. 9.	Struthers, O.	**May 8**
Jun. 11.	Cincinnati, O.	May 22
Jun. 14.	Seattle, Wash.	May 22
Jun. 21.	Baton Rouge, La.	May 22
Jun. 21.	Brainerd, Minn.	**May 22**
Jun. 26.	Columbus, O.	May 22

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

May 24.	Dike, Kansas City, Mo. (2 Prop.) Adv. Apr. 24, to May 15.	**Apr. 24**
May 24.	Lock, Detroit, Mich. Adv. Apr. 17, May 15, 22.	**Apr. 17**
May 25.	Dredging, Portland, Me. Adv. May 15, 22.	**May 15**
May 25.	Drainage, Bellingham, Wash.	May 15
May 25.	Creek Improv., Ottawa, O.	May 22
May 25.	Ditch, Jackson, Minn.	May 22
May 26.	Levee Wk., Memphis, Tenn. Adv. May 1 to 22.	**May 1**
May 26.	Dredging, Chicago, Ill.	May 22
May 27.	Dredging, New Westminster, B. C.	May 15
May 28.	Dredge, New York, N. Y. Adv. May 1 to 22.	**May 1**
May 28.	Drainage Work, Sunnyside, Wash.	May 22
May 29.	Seawall, New York, N. Y. Adv. May 15, 22.	**May 15**
May 29.	Ditch, Anderson, Minn.	May 22
Jun. 1.	Drainage Ditches, Bartow, Fla. Adv. May 1, 8.	**May 1**
Jun. 1.	Drainage, Eagle Lake, Ia.	May 22
Jun. 2.	Water Turbines, Etc., Wheeling, W. Va. Adv. May 8 to 22.	**May 8**
Jun. 4.	Mitering Guard Gates, Louisville, Ky. Adv. May 8 to 22.	**May 8**
Jun. 7.	Stone for Jetty, Portland, Ore.	May 22
Jun. 7.	Ditch, Webster City, Ia.	May 22
Jun. 9.	Dredging, Trenton, Tenn.	May 22
Jun. 12.	Rebuilding Wharves, etc., Newport, R. I. Adv. May 15, 22.	May 15
Jun. 14.	Dam, Lock Haven, Pa. Adv. May 22.	May 22
Jun. 15.	Excav. for Earth and Rock, Detroit, Mich. Adv. May 8, 15.	**May 8**
Jun. 15.	Dam, Montreal, Que.	May 15
Jun. 16.	Canal Excav., Payson City, Utah.	May 22
Jun. 16.	Dredging, Newport, R. I. Adv. May 15, 22.	May 15
Jun. 17.	Earthwork for Levee, St. Louis, Mo. Adv. May 22.	May 22
Jun. 19.	Superstructure of Pier, Erie, Pa. Adv. May 22.	May 22
Jun. 21.	Dredging, Boston, Mass. Adv. May 22.	May 22
Jun. 21.	Dredging, Philadelphia, Pa. Adv. May 22.	May 22

PUBLIC BUILDINGS AND SCHOOLS.

May 24.	Front Royal, Va. Adv. May 1 to 22.	**May 1**
May 25.	Calgary, Alta.	**May 1**
May 25.	Lakewood, O.	**May 1**
May 25.	Redwood Falls, Minn.	**May 1**
May 25.	Arcadia, Fla.	**May 8**
May 25.	Irwin, Pa.	**May 8**
May 25.	Delaware, O.	May 15
May 25.	Pocatello, Idaho	May 15
May 25.	Racine, Wis.	May 22
May 25.	Hayfield, Minn.	May 22
May 26.	La Salle, Ill.	**Apr. 24**
May 26.	Ft. Hancock, N. J. Adv. May 1, 8.	**May 1**
May 26.	Central Islip, N. Y. Adv. May 15, 22.	May 15
May 27.	Milwaukee, Wis. Adv. May 8, 15.	**May 8**
May 27.	South Bethlehem, Pa.	**May 8**
May 27.	Ripley, O.	**May 8**
May 27.	Ashville, O.	**May 8**
May 27.	Vinton, Ia.	**May 15**
May 27.	North Brothers Island, N. Y.	**May 15**
May 27.	Seaman, O.	**May 15**
May 27.	Milwaukee, Wis.	May 22
May 27.	Duvall, O.	May 22
May 27.	Wilmington, O.	May 22
May 27.	Los Angeles, Cal.	May 22
May 28.	Ft. Terry, N. Y. Adv. May 1 to 22.	**May 1**
May 28.	Madison, S. D.	**May 8**
May 28.	Ghent, Minn.	**May 15**
May 28.	Alliance, O.	**May 15**
May 28.	Missouri Valley, Ia.	May 22
May 28.	Alexandria, Minn.	May 22
May 29.	Bremerton, Wash.	**May 8**
May 29.	Manly, Ia.	May 22
May 29.	Council Bluffs, Ia.	May 22
May 29.	Los Angeles, Cal.	May 22
May 31.	Boyd, Minn.	**May 15**
May 31.	Quasqueton, Ia.	May 15
Jun. 1.	Harrisburg, Pa.	**Mar. 13**
Jun. 1.	Urbana, Ill.	**May 8**
Jun. 1.	Cleveland, O.	**May 8**
Jun. 1.	Huntsville, Tex.	May 15
Jun. 1.	Syracuse, N. Y.	May 15
Jun. 1.	Danvers, Mass.	May 15
Jun. 1.	Flora, Ind.	May 15
Jun. 1.	St. Paul, Minn.	May 22
Jun. 1.	Youngwood, Pa.	May 22
Jun. 1.	Albert Lea, Minn.	May 22
Jun. 1.	Carlton, Minn.	May 22
Jun. 1.	Rochester, N. Y.	May 22
Jun. 1.	Whitby, Ont.	May 22
Jun. 2.	Longview, Tex.	May 1
Jun. 2.	Kearny, N. J.	May 22
Jun. 3.	Chillicothe, Mo.	**Apr. 24**
Jun. 3.	Corning, O.	**May 8**
Jun. 3.	Chillicothe, O.	May 15
Jun. 3.	Marion, O.	May 22
Jun. 3.	Rock Island, Ill.	May 22
Jun. 4.	Louisville, Ky.	May 22
Jun. 4.	Ft. Sam Houston, Tex. Adv. May 22.	May 22
Jun. 4.	Onward, Ind.	May 22
Jun. 5.	Brookville, O.	May 22
Jun. 7.	Oklahoma City, Okla.	**May 8**
Jun. 7.	Manilla, Ia.	May 22
Jun. 7.	Vienna, O.	May 22
Jun. 8.	Reading, Pa.	**May 8**
Jun. 8.	Louisville, Ky.	May 15
Jun. 8.	Parry Sound, Ont.	May 15
Jun. 8.	Tomah, Wis.	May 22
Jun. 8.	Mahoningtown, Pa.	May 22
Jun. 9.	Detroit, Mich. Adv. May 15.	May 15
Jun. 9.	Hamilton, O.	May 22
Jun. 14.	Marlin, Tex.	**May 8**
Jun. 14.	Tampa, Fla. Adv. May 8, 15.	**May 8**
Jun. 14.	Toledo, O.	May 22
Jun. 15.	Primghar, Ia.	**May 15**
Jun. 15.	Ft. Sill, Okla. Adv. May 22.	May 22
Jun. 16.	Connersville, Ind.	May 22
Jun. 21.	Cuero, Tex.	May 15
Jun. 23.	Allentown, Pa.	May 22
July 1.	Boston, Mass.	May 22
July 13.	Washington, D. C.	May 22
———	Greenville, S. C. Adv. May 1.	May 1

PRIVATE BUILDINGS.

May 25.	Viola, Wis.	**May 8**
May 25.	Arlington, Minn.	May 22

NEW INDUSTRIAL PLANTS.

May 27.	Howard, R. I.	May 22
Jun. 2.	Beacon, N. Y. Adv. May 22.	May 22
Jun. 7.	Montreal, Que.	May 22

MISCELLANEOUS.

May 25.	Cement, Denver, Colo.	May 15
May 25.	Garbage Disposal, Toronto, Ont.	May 22
May 25.	Ties for Civic Ry., Toronto, Ont. Adv. May 22.	May 22
May 26.	Lighters, Savannah, Ga. Adv. May 1 to 22.	**May 1**
May 26.	Stone and Cement, Wilmington, N. C. Adv. May 1 to 22.	**May 1**
May 26.	Cranes, Seattle, Wash.	May 15
May 27.	Sheet Brass, Etc., Panama	May 15
May 28.	Cement Roofing Tile, Panama Adv. May 15.	May 15
May 28.	El. Rys., Brooklyn, N. Y.	May 15
May 29.	Steel Towers, Point Isabel, Tex.	May 1
Jun. 1.	Elevators, Seattle, Wash.	May 15
Jun. 3.	Lighting Fixtures in Pub. Bldg., New York, N. Y. Adv. May 8, 15.	**May 8**
Jun. 3.	Equipment for School, Montclair, N. J. Adv. May 22.	May 22
Jun. 5.	Reinforcing Bars, Panama.	May 22
Jun. 7.	Cement, Seattle, Wash.	May 22
Jun. 7.	Power House Improv., Hull, Que. Adv. May 22.	May 22
Jun. 7.	Sect. 2, N. Y. Connecting Ry., Queens Boro., L. I., N. Y. Adv. May 22.	May 22
Jun. 8.	Coal and Ash Handling Apparatus, Anacostia, D. C.	May 22
Jun. 9.	Refrigerating and Electric Light Plants, Ft. Huachuca, Ariz. Adv. May 15, 22.	**May 15**
Jun. 11.	Elevator, Augusta, Ga.	May 22
Jun. 12.	Locomotive Crane, Boston, Mass.	May 22
Jun. 12.	Cranes, Norfolk, Va.	May 15
Jul. 1.	Crane, Halifax, N. S.	May 22

★Items marked thus give the names of parties awarded contracts.

New Construction Activities

Commercial borrowing seems to be at a low ebb, judging from the way in which cash reserves are increasing, especially in the rural banks. Call money has recently been loaned in New York at one-half the interest rate New York banks pay out-of-town banks for the deposits which furnish money for these loans. It is said that if the public would come to the support of the sound railway bond issues sufficiently to raise their value to a 4½ per cent basis, that the leading systems would be in a position to take care of much long-delayed improvement work. The placing of replacement orders by the Pennsylvania Railroad, announced some time ago, has been nearly completed. Several other roads are buying rails, cars and small tonnages of bridge steel in increasing quantities. The Russian Government is said to be in the market for rails and cars calling for a heavy tonnage of steel, some of which has been placed. Rail contracts placed so far this month total 190,000 tons, and the 138,000 tons remaining to be placed for the Pennsylvania's requirements will probably be given out this month. It is said that shipments and orders for rolled steel products have increased 6 to 10 per cent since May 1, and in some quarters the possibility of operation in this industry at or near full capacity by August is seen. Preliminary orders for a freight house foundation and for the Field Museum, in Chicago, have helped the lumber market.

Buildings

A $125,000 passenger station for the Pennsylvania Railroad at Wilkinsburg, Pa., has been contracted for. Buildings to cost $100,000 each have been contracted for at Framingham, Mass.; Wellesley, Mass.; Brooklyn, N. Y., and Boone, Iowa. A contract for a $650,000 church has been awarded in New York City. Low bids on a woman's building for the University of Cincinnati, opened May 4, totalled $127,000. Bids are desired on a $95,000 high school at West Springfield, Mass. Bids will soon be asked on a $400,000 armory at Philadelphia. Plans have been filed in New York City for a $750,000 apartment house, three hospital buildings which will cost $350,000, and a printing building to cost $350,000. Plans are being prepared in New York for a new building for Barnard College and for a $500,000 apartment house. Plans are being prepared in Lancaster, Pa., for a $150,000 school building.

Bridges and Roads

Small bridge contracts have been awarded at Central Falls, R. I.; at Lawrence, Mass., and at Marshfield, Ore. Bids are desired on ten concrete bridges at South Cayuga, Ont., and on five concrete bridges at Watertown, S. D. Bids are called for June 25 on two of the Seattle bridges, both to cost $880,000. These bridges are to be steel, instead of concrete, as at first reported. Bills have been favorably reported to the Philadelphia Council recommending the construction of seven bridges whose total cost will be $350,000. The largest will cost $200,000. The construction of a $100,000 bridge at Dallas, Texas, is being considered.

Bids were opened by the State of Maine, on May 19, for highway work totalling $197,000, on which contracts totalling $93,500 have been awarded. Low bids opened at Albany, N. Y., May 21, on 22 sections of road work ranged from $70,000 to $132,000. A good number of contracts were awarded last week, among which are: 90,000 sq. yd. of paving at Anderson, S. C.; an $83,000 road contract at Alexandria, La.; a $55,000 paving contract at Great Bend, Iowa; a $150,000 road contract at Elgin, Texas, and a $71,000 paving contract at San Mateo, Cal. Bids are desired on considerable paving work both at Baltimore and at Philadelphia. Bids are also desired on road work at Clarksburg, W. Va., to cost $50,000, on paving at Lake Forest, Ill., and on 80,000 sq. yd. of pavement at Corpus Christi, Texas. The Board of Estimate has appropriated $600,000 for paving work in Brooklyn. Paving contracts totalling over $500,000 will soon be let at Seattle, Wash. Paving work costing $300,000 is contemplated at Portland, Ore. Carlisle, Ky., and Norfolk, Va., were unsuccessful in selling road bonds, but Wilmington, Del., has sold $300,000 paving bonds, and $100,000 road bonds have been sold at Elyria, Ohio. The bill authorizing the issue of road bonds in the sum of $50,000,000 has passed the Pennsylvania State Senate. Bids are desired on issues of road bonds at Hackensack, N. J.; at Sault Ste. Marie, Mich., and at Arcadia, Fla.

Waterworks and Sewers

A $62,000 waterworks contract has been awarded at Shrewsbury, Mass. The concrete reservoir contracted for at Salem, Mass., will cost $68,000. Waterworks contracts totalling $72,000 have been awarded at Durham, N. C. The lowest bid opened May 20 for water mains in New York City was $42,600. Bids are desired for two waterworks pumps at Salem, Mass., and for two steel tanks at Rock Valley, Iowa.

A $305,000 sewer contract has been awarded at Milwaukee, Wis. Another contract was awarded at Newark on the Passaic sewer for $61,000. Bids are desired on the construction of a 6-ft. diameter sewer at Washington, D. C. Bids are desired at Baltimore on 7 miles of sewer line and house connections. Bids are desired on 7 miles of sewer construction at Okolona, Miss. The issuing of $300,000 in bonds, one-half of which will be spent for sewer work, has been recommended at Omaha, Neb. Sewer work proposed at St. Paul, Minn., will cost $289,000.

Miscellaneous

A $71,000 grade crossing eliminating contract has been awarded at Buffalo, N. Y. Bids are desired at Warren, Ariz., for constructing 38 miles of railroad. Contracts between the city of Philadelphia and the Reading and Pennsylvania railroads for the removal of grade crossings have been authorized. Charters have been granted to two railroad companies in Georgia, one with a capital of $100,000 at Jacksonville, and one with a capital of $1,000,000 at Savannah. Bids are desired in New York City for 1500 tons of rails and other track supplies for elevated lines. Bids will be received June 15 in New York City for erecting the Nostrand Avenue elevated branch of the Eastern Parkway Rapid Transit Railroad by the Public Service Commission of the First District. The lowest bid for constructing lock No. 4 at the Saulte Ste. Marie canal was $1,010,480. The lowest bid for deepening the Genesee River at Rochester, N. Y., was $315,000. The Pennsylvania legislature has passed bills authorizing the construction of the Pymatuning dam at Sharon, of a dam on the Youghiogheny River at Harrisburg, and of port improvements at Philadelphia which will cost $500,000. Further plans for the Jamaica Bay improvements to New York harbor have been approved by the Sinking Fund Commission. Plans are being prepared for a $1,000,000 coal dock for the Baltimore & Ohio at Baltimore.

WATERWORKS

PROPOSED WORK.

Brookhaven, N. Y.—The Ronkonkoma Water Co., of Brookhaven, reported incorporated with a capital of $30,000. Directors: Isaac N. Parmenter, Willard D. Howe and Allston B. Carpenter, of New York.

Jersey City, N. J.—Reported desired until June 1 for filter plant at West Hudson Park and for pumping station. Address County Park Comrs.

Philadelphia, Pa.—Carleton E. Davis, Chief of the Water Bureau, has recommended that Council Finance Com. appropriate $200,000 for improvement of pumping equipment at the Shawmont, Roxborough and Mt. Airy Stations.

Gastonia, N. C.—Bonds in the sum of $99,000 will be sold June 1, to be used for extensions to water system and streeet improvements. T. A. Ratchford, City Clk.

Thomasville, Ga.—There is a movement on foot here looking to calling an election to vote $30,000 bonds for water works improvements, $50,000 for paving and $40,000 for city auditorium.

Ft. Meade, Fla.—Bonds in the sum of $58,000 will be sold June 15 for water, sewer, street paving and electric lights. J. J. Singleton, Secy. Bd. Bond. Trus.

Northport, Ala.—Citizens have voted to issue $13,000 for construction of municipal water works and $3,000 for sanitary storm sewers.

Contracting News

Of Special Interest to Engineers, Contractors, Builders and Manufacturers of Engineering and Building Supplies

De Ridder, La.—Water bonds in the sum of $24,000 will be sold May 29 by Mayor and Bd. of Aldermen.

Clarksdale, Miss.—Election soon to be held to vote on issuing $150,000 bonds to be used for extension to water works and electric light system, sewers, city hall and school.

Louisville, Ky.—The Louisville Water Co. (Jas. B. Wilson, Ch. Engr. & Supt.) considering construction of a pipe line from river to pumping station to connect with present centrifugal pumps.

Napoleon, O.—Until June 14 for a water softening and filter plant advertised in Engineering Record. Address Bd. Trus. Public Affairs (F. W. Reiter, Pres.). W. G. Clark, 1047 Spitzer Bldg., Toledo, O., Engr.

South Lyons, Mich.—Rossback & McKee, Ft. Wayne, Ind., have been retained by South Lyons as engineers in connection with construction of a Municipal Water Works Plant.

Alpena, Mich.—The question of issuing $85,000 bonds for filtration plant reported under consideration.

Eureka, Ill.—Citizens have voted to issue $17,000 bonds for water works extensions. Engineer, W. T. Jackson, Eureka. Bids for bonds to be received June 4 by A. V. S. Baird, City Clk.

Springfield, Ill.—Comn. Spalding is reported to favor the laying of 2 or 3 miles of water mains.

Choteau, Mont.—Town Clerk writes it is proposed to construct water works to cost $42,000. Engineers, Swearingen & McCulloh, of Choteau.

Cody, Wyo.—City Council reported to have engaged the Billings Eng. Co., Billings, Mont., to prepare plans for a municipal electric light plant and water works. B. W. Bennett, City Clk.

Kansas, City, Mo.—Mayor reported to have recommended that all bids be rejected for furnishing a motor-driven centrifugal pump, to be installed at the Turkey Creek pumping station.

Malvern, Ark.—City Council reported to have passed an ordinance providing for creating improvement district for water works.

Walnut Ridge, Ark.—Council considering question of constructing water works and sewer system.

Dallas, Tex.—A. C. Cason, Water Comr., is said to favor construction of a filtration plant at White Rock.

Aberdeen, Wash.—City Clerk will soon let contract for 4000 ft. of ¾-in., 5000 ft. 1-in. and 7000 ft. 2-in. c. i. pipe.

Ogden, Utah.—Luther S. Fass, Gen. Mgr., of the South Ogden Water Works Co., writes that no contracts have yet been let for proposed water works; it will be a gravity system and cost about $250,000. Bids for purchase of bonds will be received July 10 and for construction work about Aug. 10. Engineer J. F. Wooley, of Ogden.

Kellogg, Idaho.—The Kellogg Power & Water Co. will spend about $75,000 in bringing water from Big Creek 4 miles from city to improve local water supply.

BIDS DESIRED.

Salem, Mass.—Until June 21 for furnishing and erecting two 10,000,000-gal. steam pumps with necessary appurtenances, advertised in Engineering Record. Address P. J. Kelley, Dir. Pub. Works; Geo. F. Ashton, City Engr.; Wm. S. Johnson, Consulting Engr., 101 Tremont St., Boston, Mass.

Lockport, N. Y.—Until June 7 for constructing 10 and 12-in. water pipe in Market and Mill Sts., advertised in Engineering Record. Address Wm. G. Spalding, City Clk.

Chicago, Ill.—Until June 1 for water service pipes in various streets, including Dickens, S. Michigan and various other streets and avenues by Bd. Local Improv. (Edw. J. Glackin, Secy.).

Rock Valley, Ia.—Reported desired until June 2, for a 100-ft. steel tower and a 50,000-gal. steel tank; also for removing the present wooden tank and replacing same with a 40,000 gal. steel tank on present tower. Address J. A. Garland, Town Clk.

Harrison, Ark.—Until June 25, for water works, to cost $25,000. Address Geo. W. O'Neal, City Secy.; M. A. Earl & Co., Consulting Engrs., 725 Flynn Ames Bldg., Muskogee, Okla.

Ft. Sam Houston, Tex.—Until June 11 for removing steel tank, constructing pumphouse and pumping plant at old target range near here. Address Constructing Quartermaster.

Temple, Tex.—Until June 8, for construction of concrete dam and spillway at water works pumping station, by City Clerk; cost $20,000.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Troy, N. H.**—Contract for 350 tons of 6, 8 and 10-in. c. i. pipe awarded to M. J. Drummond, New York, at $23.82 per ton, and 6000 ft. 12-in. and 8000 ft. 10-in. wood stave pipe, to Michigan Pipe Co., of Bay City, Mich.

★**Shrewsbury, Mass.**—Contract has been awarded to Hanscom Constr. Co., Boston, at $62,000 for constructing complete water system, including stand-pipe, pumping outfit, etc.; 55 hydrants and 6 to 7 miles of pipe. To be completed Nov. 1, 1915. Geo. E. Stone, Town Clk.

New York, N. Y.—Lowest bid opened May 20 by Wm. Williams, Comr. Water Supply, Gas and Electricity, for furnishing, delivering and laying water mains and appurtenances in E. 63d, E. 79th and E. 82d Sts., Manhattan Boro., submitted by Rodgers & McManus, as follows: 735 tons c. i. pipe, $24; 70 tons c. i. castings, $56.75; 15 tons c. i. castings, $31,25; 5000 cu. yds. earth excav., 55 cts.; 800 lin. ft. 48-in. pipe, $3; 1500 lin. ft. 36-in., $2.25; 50 lin. ft. 30-in., $2; 750 lin. ft. 20-in., $1.05; 1500 lin. ft. 12-in., 75 cts.; 250 lin. ft. 6-in., 20 cts.; total, including valves, hydrants, etc., $42,651. Next 3 lowest bids: Jas. W. Maloney, $42,865; L. D. Gregory, $44,448; Knight & DeMicco, Inc., $44,711.

★**Durham, N. C.**—Contracts for water works improvements from plans of G. C. White, of Charlotte, N. C., awarded as follows: C. i. pipe, Glamorgan Pipe & Fdry. Co., Lynchburg, Va., $23.50 per ton; lay 20-in. pipe line, W. G. Fritz Co., Newark, N. J., 62 cts. per ft.; city pumping station (building) and river pumping station to Christian Constr. Co., Durham, at $21,327 and $9,326 respectively; filter equipment, Roberts Filter Mfg. Co. (Darby), Philadelphia, $13,300; tower and tank, J. S. Schofields Sons Co., $1,777; pumping engines, Allis Chalmers Co., Milwaukee, $18,000; boilers, D. M. Dillon Steam Boiler Wks., $7,087; valves and hydrants, Chapman Valve Mfg. Co., Indian Orchard, Mass., $2,094.

★**Plant City, Fla.**—Contract for pipe and special castings awarded (bids opened May 15) to American Cast Iron Co., Birmingham, Ala.

★**Canton, O.**—Contracts reported awarded by Water Dept. to Massillon Iron & Steel Co., Massillon, for c. i. pipe at $31,215; for wrought iron pipe to Canton Supply Co., Canton, at $2,570.

★**Cleveland, O.**—Contracts awarded by Bd. of Control as follows: To Babcock & Wilcox Co., Cleveland, for 5 Sterling boilers with brick work for division of water, at $43,405 (bids opened Apr. 15); to Sanford-Riley Stoker Co., Ltd., Worcester, Mass., for five 6-retort Riley stokers at $19,000 (bids opened Apr. 15); to Jas. McNeil & Bro. Co., Pittsburgh, for 72-in. riveted steel pipe for Division Ave. pumping station at $8,199 (bids opened Apr. 30).

★**Rocky River, O.**—Contract awarded for furnishing material and installing water mains on North Ridge Rd., to Ross Cook Eng. Co., Akron, at about $13,400 (bids opened May 18). Frank Mitchell, Village Clk.

★**Orion, Mich.**—Contract awarded for constructing water works to Traverse City Iron Wks., Traverse City, at about $16,900 (bids opened May 11). Geo. M. Perry, Village Clk.

★**Peoria Heights, Ill.**—Contract awarded to W. G. Hoy, of Woodstock, for laying mains at $47,000.

★**Kansas City, Kan.**—Contract for concrete piling for foundation of the new stack for the Quindaro Pumping Station awarded to Raymond Concrete Pile Co., 140 Cedar St., New York.

★**Wellington, Kan.**—Contract for construction of central power station, cooling pond, with louvre fence, sub-station, 250,000-gal. reinforced concrete reservoir, etc., awarded to J. H. Mitchell & Son, Wellington, at $21,991. Swatek & Parker, of Oklahoma City, Oklahoma, bid $22,801. Contract for construction of reinforced concrete chimney, 125 ft. high, with fire brick lining, was awarded to the General Concrete Construction Co., of Chicago, at $1,570.

★**Palo Alto, Cal.**—Contract for 4 miles of water mains has been awarded to Jas. Stanley, Sr., of Sausalito, at $13,396. Frank Kasson, City Clk.

SEWERAGE AND SEWAGE DISPOSAL

PROPOSED WORK.

Westfield, Mass.—Town meeting May 18 voted to borrow $12,000 for construction of surface sewers on Smith, Linden and King Aves., Meadow and Butler Sts., and house sewers on upper Franklin and Frederick Sts.

Worcester, Mass.—Alderman John G. Johnson, Chmn. Sewer Com., has asked Council to appropriate $10,000 for sewer construction.

Bridgeport, Conn.—About 12,000 ft. 12 to 48 in. sewers contemplated. A. H. Terry, City Engr.

Freeport, L. I., N. Y.—A public meeting will be held June 16 to consider question of constructing sewer system; estimated cost, $300,000.

Philadelphia, Pa.—The Com. on Surveys of Council on May 20 reported favorably bills for construction or extensions of 12 main sewers including extension of Rock Run sewer to drain Oak Lane, $80,000; for completion of Gunner's Run relief sewer, from 3d St. to 12th St., $70,000, and for extension to Cobb's Creek intercepting sewer, $70,000.

Atlantic City, N. J.—City will spend about $100,000 on extension of storm water drainage system. J. W. Hackney, City Engr.

Grantsville, W. Va.—Reported bonds in the sum of $10,000 will be sold by S. T. Waldo, Recorder, June 7, for constructing water and sewer systems.

Ft. Meade, Fla.—See "Water Works."

Clarksdale, Miss.—See "Water Works."

Cleveland, Tenn.—Engineer to be selected June 17 for sewer system. Applications to be received until June 16 by C. A. Mee, Mayor, advertised in Engineering Record. Probable cost $75,000.

Chillicothe, O.—H. M. Redd, City Engr., has been instructed to prepare plans and estimates for about 1400 ft. of 36 and 40-in. storm water sewer laterals to intersect Honey Creek storm sewer.

Chicago, Ill.—Sanitary District has authorized purchasing right-of-way for building an intercepting sewer, drain and outlet with appurtenances as adjunct to Calumet-Sag Channel.

Peoria, Ill.—Board of Local Improv. will soon let contract for constructing extension of west section of North Peoria sewer on McClure Ave. and North St. Estimated cost $8,257.

St. Paul, Minn.—The proposed Como-Snelling sewer system will cost about $289,000 with pipe laterals and will include about 6000 ft. 4-ft. 6-in. and 3000 ft. 5-ft. 6-in. concrete sewers. Bids for construction will probably be received in July.

Augusta, Kan.—Worley & Black, of Kansas City, Mo., have just closed contract with this city to furnish plans and specifications for sewer system, to consist of 5 miles of laterals and septic tank. J. W. Swetzer, City Engr.

Omaha, Neb.—City Council Com. has voted to recommend ordinance for the sale of auditorium, sewer and park bonds in the amount of $150,000, $100,000 and $50,000.

Walnut Ridge, Ark. — See "Water Works."

Pittsburgh, Tex.—City Council has granted to S. G. Duff and associates, of Greenville, a franchise to construct a sewer system.

San Benito, Tex.—A petition is being circulated calling for an election to vote a bond issue for a sewage disposal plant.

Antlers, Okla.—See "Water Works."

Seattle, Wash.—The Bd. of Pub. Wks. (A. L. Valentine, Chmn.), has authorized expenditure of $12,000 to build a 24-in. sewer in tunnel at 2d Ave. and 39th St.

Mesa, Ariz.—Citizens voted May 18 to issue $75,000 bonds for construction of sewer system and septic tank.

BIDS DESIRED.

Brooklyn, N. Y.—Until June 2 for furnishing material and constructing sewers in Ave I, Eastern Pkwy., Classon Ave. and Hemlock St.; repairing sewer in McKibben St. and constructing sewer basins in several streets. Engineer's estimate, $11,035.

Jersey City, N. J.—Until June 3 for constructing lateral sewers in Columbia and Germania Aves. Address City Commissioners.

Montrose, Pa.—Until June 10 for about ½ mile of sanitary sewers, concrete treatment tanks, etc.; advertised in Engineering Record. Address A. J. Wheaton, Secy. Boro. Council; F. H. Shaw, Consulting Engr., 308 Breneman Bldg., Lancaster.

Baltimore, Md.—Until June 2, for constructing lateral sewers and house connections in Dist. 24-A, Contract 155, requiring approximately 3600 lin. ft. 27-in. and 21,000 lin. ft. 8 to 15-in. sewer, and 15,500 lin. ft. house connections. Harry W. Rodgers, Secy., Sewer Comn.

Washington, D. C.—Until June 3 for about 600 lin. ft. trunk sewer 6 ft. diam., advertised in Engineering Record. Address Comrs. D. C. (Oliver P. Newman, Chmn.).

Okolona, Miss.—Until June 18 for sewer system approximately 11,550 cu. yds earth and 9592 cu. yds. rock exvac., furnishing and laying 39,200 ft. 8 to 12-in. pipe, 54 manholes, 25 flush tanks, etc.; advertised in Engineering Record. Address J. H. Davis, City Clk.; Frank L. Wilcox, Engr., Syndicate Trust Bldg., St. Louis, Mo.

Chattanooga, Tenn.—Until May 31, for constructing pipe storm water sewers in Carpenter St. and McCallie Ave. Address County Comrs. (H. B. Bryan, Co. Engr.)

Columbus, O.—Until June 16, for furnishing material and constructing a sewage disposal plant and sewer for Franklin County Infirmary and Tuberculosis Hospital. Address John Scott, Co. Clk.

Dayton, O.—Until June 1 to construct sanitary sewers in Delaware, Highland and Neal Aves. Address Secretary to Director Pub. Service.

Donnelsville, O.—Until June 11 for furnishing material and installing sewage disposal plant at new infirmary near Donnelsville Station. Address Bldg. Comn. of New Infirmary Bldgs. (Geo. McCord, Pres.), care of County Auditor, Springfield.

Chicago, Ill.—Until June 18 for constructing sewer system, comprising 14 miles brick sewer, ranging from 2½ to 9 ft. diam., with 3 concrete outfalls and 2 special overflows, in Argyle and other streets, to be known as the Norwood Park sewer system. Address Bd. of Local Improvts. (C. D. Hill, Engr.), or Edw. J. Glackin, Secy.

Chicago, Ill.—Until June 1 for constructing drains in various streets, including Aberdeen, E. 95th Sts., Calumet, Escanaba and various other avenues and streets, by Bd. Local Improv. (Edw. J. Glackin, Secy.).

New Glarus, Wis.—Until June 4 for furnishing and laying 5772 ft. 12, 10, 8, 6 and 5-in. vitr. pipe sewers, 13 manholes, 1 lamphole, and 1 concrete sewage tank. 16 x 44 ft. Address E. J. Hoosly, Village Clk. W. G. Kirchoffer, Engr., Vroman Blk., Madison.

Oshkosh, Wis.—Reported desired June 4 for constructing a part of the Stringham Creek Storm and Sanitary Sewer. Address R. A. Hollister, Chmn. Bd. Pub. Wks.

Mt. Ayr, Ia.—Until June 3 (extension of date from May 17) for constructing a sewer system, estimated to cost $40,000 by City Clk. E. T. Archer & Co., Consulting Engrs., 406 New England Bldg., Kansas City, Mo.

Brainerd, Minn.—Until June 7, for constructing Dist. Sewer No. 3, 2110 ft. 12 and 18-in. pipe, Lateral Sewer C-1, Dist. No. 3, 1550 ft. 8 and 10-in. pipe, and Lateral Sewer B-3, Dist. 4 and 7, 3040 ft. 8, 10 and 12-in. pipe, etc. Address A. Mahlum, City Clk.

Sisseton, S. D.—Reported desired until June 15 for laying 8 to 15-in. vitr. clay pipe sewers, 78 manholes, 7 flush tanks and 6 lampholes. Address Casper Kennedy, Mayor. Dakota Eng. Co., Engrs., Mitchell.

Chehalis, Wash.—Reported until June 7 for constructing a trunk sewer; probable cost, $25,366. Address D. W. Boone, City Clk.

Walla Walla, Wash.—Until June 8 for constructing 6, 8, 10 and 12 in. vitr. pipe sewers; cost about $9,000. W. R. Rehorn, City Engr.

North Bend, Ore.—Reported desired until June 8 for complete construction of sewer system, together with all necessary manholes, sewer service pipes, etc. Address C. E. Maybee, City Recorder.

Toronto, Ont.—Until June 8 for constructing sewers in Cockburn Ave., Scarboro Rd., Small and several other streets. Address T. L. Church (Mayor), Chmn. Bd. Control.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Newark, N. J.**—Contract awarded by Passaic Valley Sewerage Comrs., Newark (Wm. M. Brown, Ch. Engr.), for constructing northerly portion of Sect. 19, Acquackanonk - Garfield - Passaic Branch Intercepting Sewer, Boro. Grafield, to Harrison & Craig Co., Newark, $61,740. Unit prices in Engineering Record of May 15. (Bids opened May 11).

Palisade Park, N. J.—Lowest bid opened May 11 by Mayor and Boro. Council for Contract B, sewage disposal work, was submitted by Averill-Mathews Co., Essex Bldg., Newark, at following bid:

152.1 cu. yds. concrete, Class "A"	$11.00
107 sq. ft. concrete baffle plates, complete	.50
11 tons steel reinforcing rods	60.00
171 lin. ft. 6-in. steel I-beams, at 14 lbs. to the ft.	.45
138 lin. ft. 4-in. steel I-beams at 10 lbs. to the ft.	.35
18 sq. yds. wire cloth reinforcement	.50
100 lin. ft. oak timber baffles, complete	.30
82 lin. ft. oak timber notched weir boards	.25
1 sludge pipe (31 lin. ft. 8-in. cast-iron pipe)	50.00
9.3 lin. ft. 2-in. lead perforated water pipe	.50
2 board walks	25.00
825 cu. yds. excav.	2.25
1 M ft. sheeting and shoring	50.00
186 cu. yds. cinder embankment and foundation	.50
24 cu. yds. clay bed	2.00
44 cu. yds. coke, cinder and sand filter bed	2.00
244 lin. ft. 3-in. drain tile	.12
24 lin. ft. 5-in. drain tile	.20
12 lin. ft. 5-in. vitr. pipe drain	.25
3 lin. ft. 24-in. vitr. pipe drain	2.00
130 lin. ft. 6-in. vitr. pipe from sludge bed	.30
60 lin. ft. piles	.75

★**Piqua, O.**—Contract awarded to Boyd Cook, of Dayton, for construction of storm sewers in South Downington and Wayne Sts. and sanitary sewers in Adams, South Downington and Wayne Sts., at about $8,458.

★**South Bend, Ind.**—Contract for constructing sewers in Michigan St. (bids opened May 15) awarded to J. H. Cahill, 1540 9th St., Louisville, Ky., $42,840. Other bidders: Michaels & Minnick, Marion, $48,471; O'Donnell & Thornberry, Vincennes, $51,756; Hoban & Roach, South Bend, $58,363; L. H. Webster, South Bend, $63,312. Work includes 22 lin. ft. 24-in., 1020 lin. ft. 60-in., 1518 lin. ft. 54-in., 452 lin. ft 48-in. reinforced concrete pipe and 5000 lin. ft. 8-in. vitr. sewer pipe. V. C. Sweeney, Clk. Bd. Pub. Wks.

★**Milwaukee, Wis.**—Contract reported awarded to John F. Casey Co., Pittsburgh, Pa., for construction of an intercepting sewer paralleling the Milwaukee River on east side from dam to Detroit St., at $305,304.

★**Junction City, Kan.**—Contract awarded May 14 for 3½ miles of sewers to W. W. Cook, Junction City, at $8,905. Other bids: F. F. Ziegler, Junction City, $10,132; O'Neil Contr. Co., Leavenworth, Kan., $10,390; M. J. Stach, Kansas City, Mo., $11,062. L. G. Gross, City Engr.

Siloam Springs, Ark.—Following are reported to be the bids opened May 12 by Bd. of Improv., Sewer Dist. No. 1, to furnish material and construct a sanitary sewer system: Everitt & Britt, Hutchinson, Kan., $43,711; Bash & James, Joplin, Mo., $45,400; Pouncy Paving Co., Memphis, Tenn., $45,496; John Spardis, Springfield, Mo., $60,484.

★**Cathlamet, Wash.**—Contract reported awarded by City Council for constructing a sewer system to C. G. Randles, of Portland, Ore., at $9,784.

★**Seattle, Wash.**—Contract awarded by Bd. of Pub. Wks. for construction of sewers in Leary Ave. to Benjamin, Hawkey & Gartner, 36th Ave., S. W., Seattle, at $18,974.

Houston Heights, Tex.—Following are 4 lowest bids opened May 10 for constructing storm sewers from plans of Howe & Wise, First National Bank Bldg.,

Salem, Mass.—Following are 5 lowest bids opened May 17 by P. J. Kelley, Dir. Dept. Pub. Wks., for constructing a covered concrete reservoir of 10,000,000 gals. capacity, from plans of Wm. S. Johnson, 101 Tremont St., Boston: (a) A. G. Tomasello, 68 Gibson St., Dorchester, $68,455; (b) Sessler-Weaver Co., Montreal, Que., $72,968; (c) Middlesex Contr. Co., Framington, $78,290; (d) David J. Sheehan Co., $86,590; (e) W. M. Bailey Co., $87,173. Geo. T. Ashton, City Engr.

	(a)	(b)	(c)	(d)	(e)
1,000 cu. yds. excav.	$1.00	$0.90	$0.95	$1.00	$1.00
25,000 cu. yds. earth fill	.35	.34	.29	.50	.52
2,200 cu. yds. concrete in piers and arches	8.45	6.72	8.70	11.00	10.20
1,850 cu. yds. concrete in floor	7.00	13.05	8.40	8.00	8.55
3,300 cu. yds. all other concrete	6.30	5.54	8.40	8.50	8.90
53 tons steel reinforcing	75.00	80.00	80.00	80.00	51.30
3 acres fertilizing and seeding	100.00	160.00	50.00	100.00	250.00
Gate house (lump sum)	1,400.00	740.00	2,500.00	1,000.00	1,174.00
Appurtenances (lump sum)	700.00	900.00	800.00	500.00	903.00

Houston. Horton & Horton, $26,222; Hunter & Hunter, $31,015; Freund & Quay, $35,000; Bailey, Reeder & Co., $33,898.

★Unit prices of Horton & Horton, of Houston (successful bidders), as follows:

Concrete inlet on 84 in. sewer....	$550.00
Concrete inlet on 36 in. sewer....	45.00
2 manholes on 84 in. sewer, 12 ft.	110.00
Manholes per ft. below 12 ft.....	11.00
1 manhole on 36 in. sewer.....	45.00
1 catch basin on 36 in. sewer.....	32.00
1 7 ft. catch basin on 84 in. sewer	105.00
1 4 ft. catch basin on 84 in. sewer	37.00
150 ft. of 12 in. sewer.....	1.25
4 sidewalk catch basins.....	24.50
Expansion joint 84 in.....	75.00
Outlet on 84 in. sewer.....	1,775.00
10 cu. yds. extra concrete.....	7.50
1000 lb. reinforcing steel.....	.04
5 M ft. B. M. in trenches.....	25.00
1 M ft. B. M. in foundation.....	45.00
150 ft. sewer on piling 84 in.....	20.50
590 ft. concrete 36 in. sewer.....	3.25
84 in. Concrete Sewer	
200 ft. 22-24 ft. deep.....	$18.00
100 ft. 20-22 ft. deep.....	17.30
100 ft. 18-20 ft. deep.....	16.50
150 ft. 16-18 ft. deep.....	16.00
100 ft. 14-16 ft. deep.....	15.00
100 ft. 12-14 ft. deep.....	14.30
50 ft. 10-12 ft. deep.....	13.60
100 ft. 8-10 ft. deep.....	13.00
150 ft. 6-8 ft. deep.....	12.30
50 ft. 4-6 ft. deep.....	11.20
100 ft. 2-4 ft. deep.....	10.80

BRIDGES

PROPOSED WORK.

Boston, Mass.—Public Works Dept. has been directed to prepare plans for widening and repairing bridge over Charles River at Spring St.; cost about $30,000.

Springfield, Mass.—The Governor signed the bill providing for constructing bridge between Springfield and West Springfield.

East Aurora, N. Y.—Citizens voted $17,500 bonds for constructing concrete bridge over Cazenovia Creek.

Harrisburg, Pa.—The Senate passed bills authorizing construction of bridge over Susquehanna River between Herndon and Port Trevorton.

Philadelphia, Pa.—The Survey Bureau plans for new bridges were approved and bills authorizing their construction favorably reported May 20 by Com. on Surveys of Councils, as follows: On line of Bensalom pike, over Pennypack Creek, $200,000; on the line of 54th St. over Philadelphia, Baltimore & Washington R.R., $25,000; on line of Front St. through grounds of Philadelphia Hospital for Contagious Diseases, $12,000; on line of Orthodox St. over Frankford Creek, $25,000; on line of 13th St. over Richmond branch of Reading Ry., $43,000; on line of Torresdale Ave. over Frankford Ave., $45,000, and $2,000 for preparation of plans for a bridge on Henry St. over Wissahickon, which possibly will be one of the longest bridges in city.

Arcadia, Fla.—Bonds in the sum of $210,000 will be sold June 8 by A. L. Durrance, Clk. Bd. Co. Comrs., for special road and bridge Dist. No. 1.

Memphis, Tenn.—J. H. Weatherford, City Engr., reported to have completed plans for construction of the Bayou Gayoso outfall culvert from the new pumping station to Wolf River; estimated cost $21,170.

Manitowoc, Wis.—About $30,000 is to be spent by county for constructing bridges.

Kansas City, Mo.—Contract will soon be let by County Court for constructing viaduct over Chicago & Alton Ry. and a subway under tracks of Missouri Pacific Ry. on 15th St., between Independence and Kansas City.

Wyandotte County Comrs. approved plans for $500,000 bridge to span Kaw River at Central Ave., Kansas City, Kan.

Dallas, Tex.—Construction of a bridge over Trinity River at Commerce St. is reported contemplated by Commissioners Court; cost about $100,000.

Colfax, Wash.—Plans are being prepared by John M. McCaw, County Engineer, for constructing concrete bridges; 55-ft. span at Pullman over South Palouse River, 25-ft. span over Pine Creek at Farmington, 25-ft. span over Silver Creek at Garfield and 40-ft. span at Clinton.

Tacoma, Wash.—The Chicago, Milwaukee & St. Paul Ry. is preparing plans for a new steel structure to replace temporary bridge over Bay St. and are figuring on making a permanent fill between Bay St. and the Puyallup River bridge. J. F. Richards, Div. Supt., Tacoma

St. Helens, Ore.—Plans have been prepared and bids are about to be let by State Highway Dept., Salem, for constructing bridges on Columbia Highway in Columbia County; estimated cost, $54,000.

The Dalles, Ore.—Plans are being prepared by E. F. Sharp, County Roadmaster, for constructing 10 concrete bridges in Wasco County.

Toronto, Ont.—York Township Council directed Frank Barber, 57 Adelaide St. E., to prepare plans for 2 concrete beam span bridges.

BIDS DESIRED.

Enosburg, Vt.—Until June 4 for 110 ft. concrete bridge 20 ft. roadway, reinforced concrete superstructure. Address F. W. Spicer, Chmn. Selectmen.

Buffalo, N. Y.—Until June 5 for masonry, paving and other work necessary for constructing viaduct over Pennsylvania R.R., subway under the Lehigh Valley R.R. and Lackawanna & Western R.R. Address Edw. B. Guthrie, Ch. Engr., Grade Crossing Comn., City of Buffalo, Room 436 Ellicott Sq.

Hackensack, N. J.—Until June 4 for constructing 7 county bridges and replanking Anderson St. Bridge, Hackensack. Address Harry A. Shuart, Clk. Bd. Chosen Freeholders; Ralph D. Earle, Jr., Co. Engr.

Glenolden, Pa.—Until June 7 for constructing a reinforced concrete bridge over Muckinapatus Creek, Glenolden Boro. and Darby Township, advertised in Engineering Record. Address Co. Comrs., Media (J. Miller Quinn, Deputy Co. Compt.)

Maryland.—Until June 15 for reinforced concrete bridge, two 98 ft. spans, over Patapsco River along Baltimore and Washington Blvd., near Elkridge, Baltimore and Howard Counties, Contract 05Br., advertised in Engineering Record. Address State Roads Comn., Baltimore, (O. E. Weller, Chmn.).

Keller, Va.—Until June 3 for constructing bridge over Occohannock Creek, 612 ft. long, consisting of wooden beam spans, substructure of piles and sheathing. Address S. W. Ames, care of Bank, Keller, Va.

Woodstock, Va.—Until June 7 for steel bridge over North Fork of Shenandoah River, 2 miles from Strasburg, to have two 115½ ft. spans, with concrete substructure. Address Clerk of Circuit Court, Woodstock.

Henderson, Ky.—Reported desired until June 7 for 11 steel and concrete bridges and a concrete culvert. Address S. H. Kimmell, Co. Road Engr.

Bucyrus, O.—Until June 12 for substructure and superstructure of Parcher Bridge, 162 ft. long; substructure of McCurdy Bridge and removing present superstructure of Parcher Bridge to said substructure; Mary St. Bridge, 50 ft. long; all over Sandusky River. Address H. A. Biebighauser, Co. Aud.

Hamilton, O.—Until June 19 for constructing a concrete bridge at Kramer-Seward farms in Sect. 7-8 Liberty Township. Address W. W. Crawford, Co. Aud.

Ottawa, O.—Reported desired June 8 for constructing a bridge over Plum Creek, 40 ft. span, 47.5 ft. wide. Address John E. Roose, Co. Aud.

Toledo, O.—Until June 1 for furnishing material, strengthening, repairing and repaving Fassett St. bridge. Address Dir. Pub. Service. (C. Burton Nichels, Secy.)

Washington, Ind.—Until June 3 for constructing bridges as follows: Beeker Bridge, 36-ft. span; Arvin Bridge and Byrow Bridge, each 40-ft. span; Malloy Bridge, 24-ft. span; Burke Bridge, 18-ft. span (concrete); Meredith Bridge, 28-ft. span; all steel span unless otherwise stated. Address Lew S. Core, Co. Aud.

Red Lake Falls, Minn.—Reported desired until June 11 for 3 reinforced concrete bridges and 4 culverts. Address Geo. Dupont, Co. Aud.

Great Bend, Kan.—Until June 9 for constructing 4 highway bridges in Barton County, as follows: Mecklin Bridge, reinforced concrete arch 80 ft. span, alternate bids on 75 ft. riveted steel span, reinforced concrete foundations; Zimmer Bridge 10 ft. span, Kruchenberg Bridge and Underwood Bridge, each 25 ft. span, last three to have reinforced concrete superstructure and plain concrete substructure. Address County Clerk, Great Bend.

Watertown, S. D.—Reported desired until June 1 for constructing 5 reinforced concrete and steel bridges. Address J. S. Johnson, Co. Aud.

Houston, Tex.—Until May 31 at 10 A. M. for constructing Turkey Creek Bridge. Address H. L. Washburn, Co. Aud.

Laredo, Tex.—Reported desired until June 15 for constructing 2 reinforced concrete bridges across Zacate and Chacon Creeks. Address J. S. Westbrook, Chmn. Street & Bridge Comn.

Seattle, Wash.—Until June 25 for constructing 2 steel drawbridges with wooden approaches at 15th Ave. N. W. and at Fremont Ave.; cost $460,000 and $420,000 respectively. Address A. L. Valentine, Chmn. Bd. Pub. Wks.

Shelton, Wash.—Until June 7 for constructing a deck Howe truss bridge across Decker Creek, 94½-ft. span, with approaches. Address Eva. L. Robinson, Co. Aud.

Walla Walla, Wash.—Until June 8 for reinforced concrete bridge; cost about $2,000. Address W. R. Rehorn, City Engr.

Washington.—Until June 14 for constructing a 468-ft. steel cantilever bridge over Cowlitz River at Mayfield, requiring approximately 190 tons steel and 615 cu. yds. concrete; also same time and place for clearing, grading and draining following sections of State Roads: 1 mile of Inland Empire Highway, across Wenas Creek, in Kittitas and Yakima Counties; 7½ miles of Pacific Highway from Vancouver north, in Clarke County. Address State Highway Comn., Olympia.

Idaho.—Until June 4 for constructing following steel bridges in Twin Falls County, one 60 ft. span and three 112 ft. spans. Address State Highway Comn., Boise (Edw. S. Smith, State Highway Engr.).

Berlin, Ont.—For constructing one 40-ft. and one 30-ft. concrete arch in Township of Waterloo. Address Bowman & Connor, Engrs., Berlin, Ont.

South Cayuga, Ont.—Until June 14 for constructing 10 reinforced concrete highway bridges, varying in span from 6 ft. to 32 ft. Address Mr. Bain, Chmn. Good Roads Com., R. R. No. 1, South Cayuga.

Toronto, Ont.—Until June 7 for constructing a reinforced concrete beam bridge on Lansing Sideroad, about 1 mile west of Yonge St. in Township of York. Address Frank Barber, Township Engr., 57 Adelaide St. E., Toronto.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Pembroke, N. H.**—Contract for constructing bridge over canal awarded by Bd. Selectmen of Pembroke to United Constr. Co., Albany, N. Y.

★**Lawrence, Mass.**—Contract for rebuilding Shawsheen Bridge at Merrimac St. awarded by Essex County Comrs. at Salem to W. N. Pike & Sons, Lawrence, at $21,621. Bids opened May 10.

★**Central Falls, R. I.**—Contract for constructing concrete arch bridge over Blackstone River awarded by Joint Com. appointed by City Council, Central Falls and Cumberland, to McKinnon Constr. Co., East Providence, at about $59,000.

★**Cobbleskill, N. Y.**—Contract for constructing bridge over Cobbleskill Creek awarded by Town Bd. to E. R. & E. N. Spaulding Constr. Co., Suffield, Conn., for concrete work, and to Standard Engineering Co., Toledo, O., for iron work; total cost $9,079.

★**Media, Pa.**—Contract for constructing Madcus Hook Bridge over Hook Creek awarded to C. T. Eastburn Co., at $39,000.

★**Converse, Ind.** — Contract awarded May 6 by County Comrs. to Rochester Bridge Co., Rochester, Ind., to construct a steel or concrete bridge at Converse. Cost about $7,000. Frank E. McElhenry, Co. Aud., Peru.

★**East Gary, Ind.**—Contract awarded by County Comrs. at Crown Point, May 17, to E. H. Crowell, to construct steel bridge over Deep River, 3 53-ft. pony spans, with concrete abutment, at East Gary, at $12,-924. Edw. Simon, Co. Aud.

★**Council Bluffs, Ia.**—Contract for constructing 5 county bridges awarded by Bd. Supervs. to Lana Constr. Co., Council Bluffs, at $18,917.

★**Jasper, Ark.**—Contract for constructing steel bridge over Big Buffalo River in Newton County awarded to M. K. Orr, Harrison, at $24,000.

★**Lockhart, Tex.**—Contract for constructing concrete bridges and culverts for county awarded to Austin Bros., Atlanta, Ga., at about $15,000.

★**Ashford, Wash.**—Contract awarded by Marks Daniels, Genl. Supt. National Parks, Monadnock Bldg., San Francisco, Cal., to McHugh & Creelman, Provident Bldg., Tacoma, for furnishing and constructing reinforced concrete bridge over Tahoma Creek in Mt. Ranier National Park, Wash., with riprap work and road construction in connection with same, at $2,365 (bids opened May 4).

★**Marshfield, Ore.**—Contract for erecting 3-span bridge over Chetco River awarded to E. G. Perham, Marshfield, at $23,000.

PAVING AND ROADS

PROPOSED WORK.

Taunton, Mass. — Municipal Council voted to spend $25,000 for road improvements.

Bridgeport, Conn.—It is proposed to construct about 15 miles bituminous concrete pavement on old macadam. A. H. Terry, City Engr.

New Haven, Conn.—See under "Bids Desired."

Bath, N. Y.—Washington, Liberty and Steuben Sts. are to be paved, at cost of about $40,000.

Brooklyn, N. Y.—Bd. Estimate appropriated $600,000 for repaving streets in Boro. Brooklyn.

East Aurora, N. Y.—Citizens voted to pave Buffalo Rd.; cost $20,000.

Endicott, N. Y.—The Village Council voted to pave North, Washington, Broad, Monroe, Park Sts., Madison and Garfield Aves.

Hackensack, N. J.—Bonds in the sum of $90,000 for Paterson Plank Road improvement will be sold June 4. Address Harry A. Shuart, Clk. Finance Com., Bd. Chosen Freeholders, Hackensack.

Harrisburg, Pa.—The Senate passed bill authorizing issuing of $50,000,000 bonds for state highway improvements.

Philadelphia, Pa.—About June 15, for paving S. Broad St. plaza. Address Wm. W. Connell, Ch. Bureau of Highway.

Wilmington, Del.—About $300,000 paving bonds have been sold by City Council.

Cumberland, Md.—About $30,000 county road bonds have been sold.

Eastville, Va.—Bonds in the sum of $25,000 will be sold June 15 by Geo. T. Tyson, Clk. Co. Bd. Superv., to be used for permanent road improvement.

Norfolk, Va. — Norfolk County Bd. Supervs. rejected all bids opened for $250,000 road bonds.

Princeton, W. Va.—Citizens of Mercer County have voted to issue $350,000 bonds for constructing roads.

Gastonia, N. C.—See "Water Works."

Thomasville, Ga.—See "Water Works."

Arcadia, Fla.—See "Bridges."

Ft. Meade, Fla.—See "Water Works."

West Point, Miss.—Bonds in the sum of $20,000 will be sold June 7 by County Bd. Superv. (L. J. Howard, Clk.) for Dist. No. 2 road bonds.

Chattanooga, Tenn.—The Dixie highway, from the Great Lakes to the Gulf of Mexico, was given definite form here May 22, when the commissioners, two each appointed by the governors of 7 states, adopted the route of the highway. Chicago was selected as the northern terminus and Miami as the southern. A resolution was adopted notifying each county and municipality through which the highway has been designated that their links must be completely and satisfactorily constructed, in accordance with the association's specifications, within a year from May 22. The officers of the Association include C. E. James, of Chattanooga; Carl G. Fisher, Indianapolis, Ind., and Clark Howell, Atlanta, Ga.

Waverly, Tenn.—Citizens of Humphreys County at Waverly have voted to issue $250,000 bonds for road construction, the work to be done under supervision of the road Comrs. (J. T. Anderson, Pres.). Bids for bonds to be received about July 1.

Carlisle, Ky.—No bids received May 15 by Fiscal Court for $125,000 road bonds. According to reports, new bids will be received.

Maysville, Ky.—The City Council voted to pave with brick E. 2d St.

Defiance, O.—Reported bids desired until May 31 for $51,000 road improvement bonds. Address County Clerk.

East Liverpool, O.—Citizens of St. Clair Township voted $40,000 bonds for road improvements.

Elyria, O.—About $100,000 county road bonds have been sold by Road Dist. No. 1.

Huntsburg, O.—Citizens voted $30,000 bonds for road improvements.

Lisbon, O.—Citizens of Elkrun Township voted $30,000 bonds for constructing roads.

Marysville, O.—Union County Comrs. sold about $43,000 road and ditch bonds.

Tiffin, O.—City Council voted to spend $64,000 for street pavements.

Troy, O.—Until June 4 for $28,000 Piqua Pike and Urbana Pike Improv. bonds. Address M. T. Staley, Co. Aud.

Ann Arbor, Mich.—Manly Osgood, City Engr., writes all bids opened May 12 for paving E. Jefferson St. from 5th to State Sts., about 5215 sq. yds. and 3000 lin. ft. curb, and Division St. from Detroit St. to Packard St., about 14,170 sq. yds., and 8285 lin. ft. curb, have been rejected and new bids will be called for probably on asphaltic concrete. The bids received on May 12 specified concrete, asphaltic concrete, bitulithic and brick. Engineer's estimate on paving asphaltic concrete was $1.20 per sq. yd.

Chelsea, Mich.—Rossback & McKee, of Ft. Wayne, Ind., have been retained as engineers by Chelsea, in connection with street improvements.

Houghton, Mich.—Paving of Front and Reservation Sts. is contemplated by city.

Sault Ste. Marie, Mich.—Bonds in the sum of $50,000 will be sold June 18 for county road improvements. Address Herbert L. Parsille, Co. Clk.

Rockford, Ill.—Bd. Local Improvements contemplates paving with brick Kishwaukee St.; cost about $50,000.

Duluth, Minn.—About $400,000 is to be spent for street improvements by city during 1915.

Lincoln, Neb.—Arthur H. Edgren, Co. Engr., writes it is proposed to pave Sheriden Boule., Holdredge St., Warren Ave., South and O Sts., about 70,000 sq. yds. paving, and 13,000 lin. ft. curb 6 x 24-in. concrete base; estimated cost $140,000.

Sioux Falls, S. D.—It is proposed to pave 19 blocks, including Phillips and Summit Aves., 7th and 12th Sts., with asphaltic concrete on cement concrete base. S. B. Howe, City Engr.

Laurel, Mont.—Contract is about to be let by Town Council for paving Main St.; estimated cost, $28,000.

Goliad, Tex.—Comrs. Court voted $25,000 bonds for road improvements.

Taylor, Tex.—All bids opened by Bd. Comrs. May 14 for $100,000 bonds for street pavements have been rejected.

Pueblo, Colo.—D. P. Gaymon, City Engr., writes bids will probably be received in July for the proposed 22,000 sq. yds. brick pavement on 5-in. concrete foundation on Grand Ave. and Court St., including 8000 lin. ft. curb. Cost about $60,000.

Silver City, N. M.—Construction of state road between Silver City and Mogollon, distance of 90 miles, is contemplated; cost $50,000. Jas. A. French, State Engr., Santa Fe.

Hoquiam, Wash.—City Comrs. considering paving 22 blocks from east city limits to north city limits; estimated cost, $106,500.

Marysville, Wash.—City Council voted to construct cement sidewalks and pave with concrete Beech St.; cost $10,000.

North Yakima, Wash.—County Comrs. will build one mile water bound macadam roadway as an extension of Tieton Drive.

Olympia, Wash.—City Council voted to pave E. 4th, Puget Sts.; cost $10,000.

Port Orchard, Wash.—Plans and specifications are being prepared by S. H. Berry, County Engr., for permanent highway in Poulsbo and one mile highway between Colby and Harper; also for highway from Port Orchard to Burley. Wm. R. Roy, State Highway Comr., said to be interested.

Seattle, Wash.—Contracts are about to be let by Bd. Pub. Wks. for paving as follows: E. Marginal Way, cost $300,000; Glenridge Way, $20,000; Thackeray Pl., $32,000; Beacon Ave., $155,000.

Dallas, Ore.—County Comrs., Polk County contemplates constructing one mile pavement on Independence-Salem Rd.

Pendelton, Ore.—City Council is considering paving 15 blocks with bitulithic.

Portland, Ore.—Municipal Dept. Public Works contemplates extending Greeley St. distance of 2 miles; cost about $300,000.

The Dalles, Ore.—Bids will soon be received by County Court, Wasco County, for building 6½ miles Tigh Road, near Dufer; also constructing 6 culverts of concrete and steel; cost $18,000.

San Mateo, Cal.—Plans have been approved by City Trustees for paving 38 blocks in district bounded by 5th Ave., El Camino Real, Peninsular Ave. and "D" St.

South San Francisco, Cal.—W. J. Smith, City Clk., will shortly receive bids for laying 3 blocks of asphaltic concrete pavement, also concrete gutters and sewer laterals. Geo. A. Kneese, City Engr. and Supt. of Streets.

Ogden, Utah.—We are informed with regard to proposed boulevard along banks of Ogden River that a petition representing 42 per cent of property along both banks of Ogden River to be effected has been filed with City Comrs., and now being considered by them. Ogden River flows westerly through the center of city, cutting it in two equal parts, total frontage about 5 miles, petition contemplates two 50-ft. roadways, concrete walls or riprap on river side; the cost estimated at $4 per ft., or a total of $100,000. Washington Jenkins is City Engr.

Salt Lake City, Utah.—About 4 miles concrete road is to be constructed by Comrs. Davis County.

Moscow, Idaho.—Contract is about to be let by City Council for paving Jackson, Almond and 1st Sts., about 15 blocks.

Vancouver, B. C.—City Council is considering paving Hastings St. with creosoted wood block pavements; cost $24,445.

BIDS DESIRED.

Holyoke, Mass.—Until June 4 for furnishing and delivering f.o.b. cars N. Y., N. H. & H. R. R., or Boston & Maine R R. as the Board may direct, in Holyoke, a sufficient quantity of vitr. paving brick to lay 3200 sq. yds. or more of pavement, advertised in Engineering Record. Address Board Public Works. (Oscar C. Ferry, Asst. Clk.)

Massachusetts—Until June 1 for constructing about 9200 ft. Sect. A, Sutton-Unbridge Rd. Address Massachusetts Highway Comn., Boston (F. U. Bieler, Secy.).

Woonsocket, R. I.—Until June 8 for paving portions of W. School, Clinton and S. Main Sts., advertised in Engineering Record. Address Bd. Aldermen (Geo. H. Emmott, Pres.), Frank H. Mills, City Engr.

Connecticut.—Until June 1 for following State work by Chas. J. Bennett, State Highway Comr., Hartford:

Milford—21,360 sq. yds. 3-in. bituminous macadam (penetration method). Specifications on file for reference at office of O. W. Head, Div. Engr., Chamber of Commerce Bldg., New Haven.

Hartford—13,790 s. yds. plain or reinforced concrete pavt. Specifications at office of Leon F. Peck, Supt. of Streets, Hartford.

Albany, N. Y.—Until June 16 by State Comn. of Highways, 55 Lancaster St., Albany (Edwin Duffey, Comr.), for improving highways in various counties, advertised in Engineering Record.

Buffalo, N. Y.—Until June 1, for paving portions of Rejtan, Matejko, Kopernik and Krakow Sts. Address F. G. Ward, Comr. Pub. Wks.

Long Island City, L. I., N. Y.—Until June 2 for furnishing and delivering a steam asphalt roller; also regulating and repaving streets as follows: With sheet asphalt, Ralph St., in all 6300 sq. yds. pavement, etc.; wood block, Steinway Ave., in all 1390 sq. yds. pavement, etc.; improved granite blocks, Harris Ave., in all 1400 sq. yds. granite block, etc.; asphaltic concrete pavement, 14th St. and 8th Ave., in all 2640 sq. yds. pavement, etc.; regulating, grading and laying sidewalks where not already laid, on portions of Maple, 46th and several other streets, in all 19,500 sq. ft. cement sidewalk, etc.; also furnishing and delivering to Bureau Highways, 250,000 second-hand granite blocks. Address Maurice E. Connolly, Pres. Boro. Queens.

Troy, N. Y.—Until June 1 for about 5871 sq. yds. paving on 4th St., including curbing, etc., and 13,282 sq. yds. on Hoosick St., including curbing, etc. Address John J. McLaughlin, Secy. Bd. Contract and Supply.

Hackensack, N. J.—Until June 7 for resurfacing with bituminous concrete on portion of State, Bergen and Warren Sts., in all 11,510 sq. yds.; also same time and place for constructing concrete sidewalks on Jackson Ave., Old Hoboken Rd., Frederick, Lafayette, Hudson, Holt, Lodi, River, Berry and other streets. Address Hackensack Improv. Comn., Municipal Bldg. (Fred. J. Thomson, Clk.).

Jersey City, N. J.—Until June 3 for improving Chestnut Ave. and Elizabeth St. Address City Commissioners.

Greensburg, Pa.—Reported desired until June 4 for paving about 3½ miles of West Newton-Suterville Road, with brick, concrete or asphalt. Address John S. Sell, Co. Compt.; C. B. Parkinson, Co. Engr.

Philadelphia, Pa.—Until June 15 for improvements of Northeast Boule. and branches from Rhawn St. northward, advertised in Engineering Record. Work includes 58,457 sq. yds. bituminous pavt., 7257 lin. ft. sewers, 9220 sq. yds. vitr. block pavt., 17,490 lin ft. concrete curbs, etc. Address Dept. Pub. Wks., Room 232 City Hall.

Pittsburgh, Pa.—Until June 10 for improving roads as follows: Fox Chapel Rd., O'Hara and Indiana Townships, about 5.13 miles; Middletown Rd., Chartiers Township, about 1¼ miles; Bower Hill Rd., Collier Township, ¼ mile; Thompson and Wibble Run connecting road, Shaler Township 2.4 miles; Oakwood Rd., Chartiers Township, .44 mile; Jacks Run Rd., Ross Township, 1.6 miles. Address Hyatt M. Cribbs, Co. Controller.

Baltimore, Md.—Until June 2 for Contract No. 118, paving Lombard St. and Washington St., to include the following: 24,400 sq. yd. sheet asphalt, 1½ in. toping., 1½-in. binder, 6-in. concrete base; 500 sq. yd. vitr. block, cement fill, mortar cushion, 6-in. concrete base; 2400 sq. yd. Hillside vitr. blk., cement fill, mortar cushion, 4-in. concrete base; 950 sq. yd. granite blk. pavg., asph. fill, sand cushion, 6-in. concrete base, city area; 1000 sq. yd. granite blk. pavg., asph. fill, sand cushion, 6-in. concrete base, railway area; 2150 sq. yd. vitr. blk. gutters, cement fill, mortar cushion, 6-in. concrete base; 110 sq. yd. granite block liners, asph. fill, mortar cushion, 6-in. concrete base; 10,000 lin. ft. armored concrete curb and circles; 3800 lin. ft. old stone curb and circles redressed and reset; 4250 cu. yd. grading, city area; 300 cu. yd. grading, railway area.

Clarksburg, W. Va.—Until June 4 for paving ¾ mile at Wallace, 1½ miles Shumston, with brick or concrete, raised curb on concrete base and 12 x 12-in. on stone base, 6-in. stone or concrete foundation, dirt and shale fill; cost $50,000. Address C. N. Fittro, Co. Road Engr.

Camden, Ala.—Reported desired until June 7 for grading and graveling part of Selem and Mobile Rd. Address County Comrs. (R)

Vanceburg, Ky.—Until June 5 for 7 miles of macadam road. Address O. P. Pollitt, Co. Clk. Ivan W. Saunders, Engr., Vanceburg.

Chattanooga, Tenn.—Until May 31, for constructing concrete pike, 2.13 miles in length, together with culverts, walls, etc., beginning at St. Elmo Ave. and crossing Lookout Mt., to bridge across Lookout Creek. Address Lookout Mt. Pike Comn. H. F. Lawrence, Chmn.; H. B. Bryan, Co. Engr.

Knoxville, Tenn.—Until June 4 for paving, grading, curbing, etc., in Improvement Dists. 103, 105, 107, 108 and 109, about 35,000 sq. yds. paving, 15,000 cu. yds. grading, 10,000 lin. ft. storm sewer, etc., advertised in Engineering Record. Address D. G. Leahy, City Recorder; J. B. McCalla, City Engr.

Ashland, Ky.—Until June 7, according to local press reports, for improving Center St., a distance of approximately 6500 sq. yds., by paving with vitr. brick. Address City Clerk.

Louisville, Ky.—Until May 27, for paving Frank Ave. Probable cost $13,000. Address Bd. Pub. Wks. (R. G. McGrath, Secy.)

Maysville, Ky.—Until June 7 for reconstructing with brick about 38,000 sq. yds. and for 19,500 lin. ft. cement curbing on portions of various streets, advertised in Engineering Record. J. N. Foster, Chmn. Internal Improv. Com.; W. L. Geazier, City Engr., York St. and Court Pl., Newport.

Cincinnati, O.—Until June 18 for improvement of the Winton Road in Springfield Township, Specification 781. Security $2,000. Address Albert Reinhardt, Clk. Co. Comrs.

Columbus, O.—Until June 1 for paving with asphalt, brick or stone blocks portions of Armstrong, Broad and other streets. Address Dir. Pub. Service (Paul B. Kemper, Clk.).

Dayton, O.—Until June 1 for paving portions of Norman Ave., W. 3d, Summers, Wyoming and Longworth St. and an alley east of Garfield St. Address Secretary to Director Pub. Service.

Elyria, O.—Reported desired June 2 for grading, draining and macadamizing North and South Center Roads a distance of about 5165 ft. in Brighton Township. Address F. L. Ellenberger, Co. Clk.

Glendale, O.—Until June 18 for resurfacing with macadam Sharon Ave., from east to west corporation line of Village of Glendale, Springfield Township. Address Co. Comrs., Cincinnati. (Albert Reinhardt, Clk.)

Painesville, O.—Until June 18 for furnishing material, grading, draining and paving with concrete (or other material equally as good, but not more expensive): Narrows Center Rd., about 1.12 miles; Call Rd., about 2.12 miles; South Ridge Rd., about 5.13 miles, all in Perry Township; also grading, draining and paving with brick block, Mentor St., Village and Township of Mentor. Address County Comrs. (W. Albert Davis, Secy.).

Steubenville, O.—Until June 18, for constructing Midway and Salem Free Turnpike, Salem Township. Address County Auditor.

Toledo, O.—See "Bridges Bids Desired."

Bremen, Ind.—Until June 18 for the following street improvements: 15,585 sq. yds. paving, 9070 lin. ft. of combined cement curb and gutter, 876 lin. ft. marginal curb, 22 iron storm water inlets, 11 manholes reset, 440 lin. ft. 8-in. vitr. tile set, 6800 cu. yds. excav. All on 5-in. concrete foundation. Chas. Cole, Mishawaka, Engr. in Charge. F. F. Knoblack, Town Clk.

Marion, Ind.—Fred C. Smith, Deputy County Surveyor, writes bids desired about July 1 for paving road from Soldiers' Home to 38th St. Bridge with Tarvia; cost, $10,000.

Ann Arbor, Mich.—Reported desired until June 2 for 20,000 sq. yds. asphaltic concrete pavt. Address Bd. Pub. Wks., Manley Osgood, City Engr.

Sault Ste. Marie, Mich.—Until June 14 for a bituminous coated concrete pavt. on Portage Ave., approximately 12,000 sq. yds., including curbing, etc., advertised in Engineering Record. Address A. J. Eaton, Secy. Bd. Pub. Wks.

Illinois.—Until June 2 for following State Road Improvements (cement to be furnished by State):

Tazewell Count, Sect. E, concrete, 1500 ft., cost $2,031 (nearest P. O. Tremont).

Wabash County, Sect. A, gravel, 8860 ft., cost $6,043 (nearest P. O. Mt. Carmel). No material furnished by State.

La Salle County, Sect. A, brick, 4040 ft., cost $28,348 (nearest P. O. Utica).

Address State Highway Commission, Springfield.

Lake Forest, Ill.—Until June 1 for improving certain streets and bridge requiring about 12,600 lin. ft. combined curb and gutter; 1950 cu. yds. crushed limestone in place, 60 catch basins adjusted and repaired, 13,400 sq. yds. asphaltic concrete pavt. (machine mixed type); 913 sq. yds. creosoted block pavt. on creosoted plank floor with new steel joist and other alterations to bridges. Address Wm. M. Lewis, Pres. Bd. Local Improv.; Jas. Anderson, Jr., City Engr.

Peoria, Ill.—Until June 1 for repaving with brick 2d Ave., from Franklin to State Sts., requiring 3400 sq. yds. pavement, etc. Address Bd. Local Improv. (Sherman W. Eckley, Pres.).

Lancaster, Wis.—Until June 2 for grading and surfacing on Dubuque—Platteville Road, in Paris and Jamestown. Work is in 3 pieces, quantities estimated as follows: Grading, excav. earth, with some rock expected, 39,000 cu. yds.; surfacing with water bound macadam, 21,600 sq. yds.; concrete overflow, paving 9 ft. width, 700 sq. yds., concrete in culverts 429 cu. yds.; standard wooden guard rail 6900 lin. ft., 10,000 lin. ft. Estimated cost of work exceeds $35,000. Plans and specifications have been prepared under the State Aid (A. R. Hirst, State Highway Engr., Madison). Address Henry Mink, County Highway Comr., Lancaster.

Port Washington, Wis.—Until June 1 for furnishing material and improving Wisconsin St. by grading and constructing a bituminous macadam pavement, requiring approximately 1490 cu. yds. grading and 7803 sq. yds. surfacing. Address Bd. Pub. Wks. (Wm. Schmidler, Chmn.).

Racine, Wis.—Reported desired until June 12 for paving Center St. with brick. Address Bd. Pub. Wks.

Dubuque, Ia.—Reported desired until June 3 for 7430 sq. yds. Hillside brick paving on asphaltic concrete. Address J. J. Shea, City Recorder.

Sioux City, Ia.—Reported desired until May 31 for paving with concrete portion of Military Road; cost $40,000. Address Paul J. Wells, City Clk.; Fred C. Smith, City Engr.

Clarksdale, Minn.—Until June 7, for 4 miles of gravel road, width 14 ft. and 8-in. deep on side, 10-in. deep in center. Address Clerk, County Supervisors. Walter L. Brannon, Co. Highway Engr.

Duluth, Minn.—Reported desired until June 2 for paving portions of 1st and 6th Sts. and 16th Ave.; probable total cost $55,599. L. Ayres, City Engr.

New Ulm, Minn.—Until June 1 for furnishing and delivering a 10-ton, single cylinder, 3-wheel, horizontal gasoline road roller. Address Wm. Backer, City Clk.; F. D. Minium, City Engr.

St. Cloud, Minn.—Until June 15 for concrete paving Improvement No. 260 and 261, about 10,300 sq. yds. Address Geo. G. Magnuson, City Clk.

St. James, Minn.—Until June 9 for constructing State Road No. 5, from Butterfield, South, 7½ miles; State Road No. 1, Town of Antrim, South, 3 miles; State Road No. 1, Town of Fieldon, 6½ miles; State Road No. 7, from Odin, East, 2½ miles; State Road No. 5, from Butterfield, North, 2 miles; State Road No. 4, between Sects. 23 and 24, Town of Nelson, 1 mile; State Road No. 3, East of Madelia, ⅛ mile; work includes approximately 67,000 cu. yds. grading and 78,000 lin ft. turnpiking, installation of portable culverts and the constructing of concrete box culverts and laying drain tile. Address John C. Jensen, Co. Aud.

Arkansas City, Kan.—Reported desired until June 1 for 12,000 sq. yds. vertical fiber block pavt. Address R. F. Fitzpatrick, City Clk.

Ft. Leavenworth, Kan.—Until June 16 for constructing concrete walks, curbs, gutters, concrete pavt., etc., at Ft. Leavenworth. Address Capt. H. E. Comstock, Q. M., Corps., Constructing Q. M., Ft. Leavenworth.

Potosi, Mo.—Until June 1 for loading, hauling and spreading gravel, and constructing earth shoulders and finishing gravel and stone roads within the Potosi Special Road Dist. Address Comrs. Potosi Special Road Dist., care of W. R. Heagler, Engr., Washington County Bank Bldg., Potosi.

Seattle, Wash.—Reported until June 9 for wooden block pavement, Central Waterfront Improvement. Approximate cost, $7,000. Address Port of Seattle Comn. (C. E. Remsberg, Secy.).

Vancouver, Wash.—Until June 14 for paving Columbia St. with hard surface material 2100 sq. yds. and 450 lin. ft. curb. Cost $4,500. B. L. Dorman, City Engr.

Walla Walla, Wash.—Until June 8 for 7000 sq. yds. paving. Address W. R. Rehorn, City Engr.

Washington—See "Bridges Bids Desired."

Washington—Until June 2, according to press reports, two portions of the Pacific Highway, a new Nisqually section, using grade over Nisqually Hill, between Tacoma and Olympia, and 6 miles of new highway south of Toledo. Address State Highway Dept., Olympia.

San Jose, Cal.—Until June 7 for improving San Jose and Alviso Rd., in Rd. Dist. No. 3. Address Henry A. Pfister, Clk. Co. Bd. Superv.

Idaho.—Until June 4 for following State work, in Washington County: Constructing a portion of Idaho-Pacific State Highway a distance of 6 miles, earthwork, 6250 cu. yds.; machine grading, 2.8 miles; gravel surfacing, 33,300 sq. yds.; one 16 ft. I beam bridge and one 8 ft. span reinforced concrete bridge. Address State Highway Comn., Boise (Edw. S. Smith, State Highway Engr.).

Sandpoint, Idaho.—Reported until June 10 for paving approximately 18,000 sq. yds. on 5-in. concrete base. Address City Clerk.

Berlin, Ont.—Until June 3 for constructing approximately 2000 sq. yds. pavt., alternate bids received on asphalt, bitulithic and vitr. brick. Herbert Johnston, City Engr. Address A. H. Miller, City Clk.

Kingston, Ont.—Until May 31 for 12,000 Imperial gals. of road asphalt for use in construction of asphalt macadam pavt. delivered in bbls. f. o. b. Kingston, in car load lots as required, duty paid. Address R. J. McClelland, City Engr.

PRICES AND LETTINGS.

★*Indicates award of contract.*

Maine—Following are lowest bids opened May 19 by State Highway Comn., Augusta, for state highway work as follows:

State Highway A, Scarboro, 5.47 miles: R. F. Hudson, $63,556; A. D. Bridge's Sons, $71,487; O. W. Rackle, $72,197.

★State Highway A, South Portland, 2.22 miles, awarded to Hassam Paving Co. at $25,539 for concrete.

State Highway C, Bath, .83 miles: Ahern Constr. Co., $6,308; A. Williams Co., $4,594. To be constructed by "State Highway Dept."

State Highway D, Thomaston, 1.279 miles: A. D. Bridge's Sons, $5,848; H. L. Baker, $5,761; Ahern Contr. Co., $5,934; A. Williams Co., $6,136. To be constructed by "State Highway Dept."

★State Highway E, Manchester, 2.68 miles, awarded to Ahern Constr. Co., Willimantic, Conn., $18,308. Next 2 lowest bids: R. G. Miller, $18,534; A. D. Bridge's Sons, $18,646.

★State Highway H, Fairfield, 2.29 miles, awarded to Noyes & Campbell, Augusta, $9,788.

State Highway L, Prospect, .34 miles: John H. Young, $1,763; Manzie Rogers, $1,889.

State Highway L, Searsport, 2.53 miles: M. Rogers, $9,718; H. A. & S. G. Day, $11,345; A. Williams Co., $12,413.

★State Highway N, Edmunds, 1.95 miles, awarded to A. Williams & Co., Boston, Mass., $9,966. Other bids: Noyes & Campbell, $11,299; H. L. Baker, $13,673.

★State Highway S, Oxford, 3.77 miles, awarded to Jas. McGregor of Rumford, $15,987. Next 2 lowest bids: M. Lavorgna, $17,333; Jas. H. Kerr, $18,808.

★State Highway S, Poland, 3.65 miles, awarded to Jas. McGregor of Rumford, $14,089.

★**Holyoke, Mass.**—Contract for improving about 13,000 sq. yds. Northampton St. with asphaltic wearing surface awarded by Bd. Pub. Wks. to Daniel O'Connell & Sons, Holyoke, at $1.05 per sq. yd.

★**Massachusetts.**—Contract awarded by State Highway Comn., Boston, as follows:

★Westford, to James E. Watkins, of Amesbury, Mass., at $4,182.

Falmouth, not yet awarded.

★**Connecticut.**—Contracts have been awarded by Chas. J. Bennett, State Highway Comr., Hartford (bids opened May 10), as follows:

★Enfield, for widening bridge and approaches over Fresh Water Brook, to T. F. Foley Co., South Norwalk, at $1,378.

★Westport, for constructing section of brick over concrete base on Boston Post Road, to Connecticut Hassam Paving Co., New Haven, at $4,248.

★Windham, about 6930 ft. of gravel road on Windham-Scotland Rd., awarded to Framingham Constr. Co., South Framingham, Mass., for approximately $8,000.

★Simsbury, about 5300 ft. of Topeka bituminous concrete on Main St., awarded to Union Paving Co., Schenectady, N. Y., at $12,305.

★Greenwich, about 8475 ft. of Topeka bituminous concrete on Boston Post Rd., awarded to W. H. Arthur, Stamford, at $16,386.

New Haven, Conn.—F. L. Ford, City Engr., writes all bids opened May 17 for 7000 sq. yds. paving on Crown St. have been rejected on account of insufficient funds. Lowest bidder: C. W. Blakeslee & Sons, New Haven, at $3.35 per sq. yd.; total $24,000.

★Contract awarded for sheet asphalt pavement on Court, Prout and Library Sts., etc. (bids opened May 18) to Union Paving Co., Schenectady, N. Y., as follows: 20,700 sq. yds. sheet asphalt on old macadam base, 82 cts.; 500 tons additional binder, $5.40; 500 tons Nez crushed stone, $1.65; 100 tons crushed stone dust, $1.55; total, $20,654. Other bids: C. W. Blakeslee & Sons, New Haven, $20,656; E. P. Tracy, Derby, $26,260.

Albany, N. Y.—Following are lowest bids opened May 21 by State Highway Com., 55 Lancaster St., for construction of highways by State aid:

Road 1238, Union Village, Main and Nanticoke Sts., Broome County, 1.03 miles: Tyne & Willey, Binghamton, $49,274; Paddelford & King, Sherburne, $49,422; Holleran Bros., Elmira, $50,963; Lee Du Bois, Leicestershire, $51,150.

Road 5412, Union Village, Main and Bridge Sts., Broome County, .28 miles: Paddelford & King, Sherburne, $11,135; Tyne & Willey, Binghamton, $11,319; Lee Du Bois, Leicestershire, $11,472; C. D. Dean, Binghamton, $11,526.

Road 5440, Binghamton City, North Chenango St., Broome County, .41 miles: Arthur D. Osborne, Binghamton, $20,488; Paddelford & King, Sherburne, $22,620; C. D. Dean, Binghamton, $23,041; Tyne & Willey, Binghamton, $23,541.

Road 1269, Little Valley-Cattaraugus, Pt. 1, Cattaraugus County, 5.62 miles: Woolsey Constr. Co., Davenport, Ia., $74,127; McNerney Constr. Co., Canton, Pa., $75,659; Gleason & Davitt, Albany, $76,699; O. M. Severson, Erie, Pa., $78,080.

Road 1275, Little Valley-Cattaraugus, Pt. 2, Cattaraugus County, 3.95 miles: O. M. Severson & Co., Erie, Pa., $67,727; McNerney Constr. Co., Canton, Pa., $67,817; Woolsey Constr. Co., Davenport, Ia., $68,169; F. Harrison Higgins Co., Olean, $70,621.

Road 5544, Hinsdale-Franklinville, Pt. 2, Cattaraugus County, 6.88 miles: D. D. Dugan & Sons, Olean, $132,687; James Rosney, Buffalo, $134,877; Parker-Hassam Paving Co., Worcester, Mass., $138,308; Woolsey Constr. Co., Davenport, Ia., $139,203.

Road 1270, Meridale-Delhi, Delaware County, 7.69 miles: Sam'l Beskin, Beacon, $72,768; H. B. Sproul Co., Inc., Peekskill, $72,878; E. J. Anderson, Menands, N. Y., $74,452; Rob. Roy Constr. Co., Albany, $75,509.

Road 1271, Rockrift-Colchester, Delaware County, 11.4 miles: Fulton Eng'g Co., Inc., Albany, $128,446; Schunnemunk Constr. Co., Highland Mills, $130,542; Sam'l Beskin, Beacon, $131,685; H. B. Sproul Co., Inc., Peekskill, $133,260.

Road 1272, Colchester-Delancey, Delaware County, 5.84 miles: E. J. Anderson, Menands, $63,898; Fulton Eng'g Co., Albany, $64,991; H. B. Sproul Constr. Co., Inc., Peekskill, $65,838; Ruddy-Saunders Constr. Co., Troy, $66,819.

Road 1268, Pavilion-Batavia, Part 2, Genesee County, 4.49 miles: John Johnson Constr. Co., Buffalo, $39,732; F. W. Knickenberg, Buffalo, $39,759; Chilson & Gibson, Le Roy, $41,880; Mich'l Murphy, Rochester, $42,528.

Road 1242, Hunters - Tannersville, Greene County, 4.43 miles: John L. Hayes Constr. Co., Yonkers, $50,420; M. E. Francis, Tannersville, $51,647; Catskill Constr. Co., Catskill, $51,804; Westchester-Dutchess Cor., Mt. Vernon, $52,446.

Road 5553, Camden-Oswego County Line, Oneida County, 5.73 miles: B. F. S. Company, Herkimer, $49,893; F. Harrison Higgins Co., Olean, $51,991; Brady-Oltarsh Constr. Co., Inc., New York, $53,592; Fort Schuyler Constr. Co., Oneida, $54,534.

Road 1139, Clifton Springs Village, Kendall and East Main Sts., Ontario County, 1.38 miles: Thos. F. Murray, Le Roy, $17,306; J. W. Brennan Constr. Co., Inc., Geneva, $17,933; Whitmore-Rauber & Vicinius, Rochester, $18,499; McNerney Constr. Co., Canton, Pa., $18,523.

Road 1276, Victor Village, Cedar, West Main and East Main Sts., Ontario County, 1.23 miles: Schroeder-Hicks Const. Co., Rochester, $23,272; Connors & Gallivan, Elmira, $23,741; McNerney Constr. Co., Canton, Pa., $23,948; John Johnson Const. Co. Buffalo, $24,145.

Road 1277, Phelps Village-Main St., Ontario County, 1.53 miles: Lake Shore Constr. & Supply Co., Dunkirk, $66,349; John Johnson Constr. Co., Buffalo, $69,959; J. W. Brennan Constr. Co., Inc., Geneva, $70,959; Wm. H. Ring Contr. Co., Ogdensburg, $71,481.

Road 1278, Canandaigua-Orleans, Ontario County, 8.63 miles: Hovey Benedict, Williamsport, Pa., $55,206; Ribstine-Holter Co., Inc. Rochester, $59,229; Michael O'Brien, Cortland, $61,174; I. M. Ludington Sons, Inc., Rochester, $61,710.

Road 1262, Madrid-Waddington, Part 1, St. Lawrence Co., 5.07 miles: W. T. Thayer Co., Chateaugay, $44,882; J. H. Weidman, Syracuse, $46,344; Thos. Grady, Rochester, $47,116; Ross-Hallenbeck Co., Copenhagen, $47,257.

St Lawrence County, 3.09 miles: Thos. O'Brien, Watertown, $31,802; F. Harrison Higgins Co., Olean, $34,919; W. T. Thayer & Co., Chateaugay, $36,172; Richd. Hopkins, Troy, $36,450.

Road 5551, Duanesburg-Quaker St., Schenectady County, 3.34 miles; Wm. Green, Schenectady, $32,461; Alonzo Schaupp, Guilderland, $32,580; Curran Cor., Middletown, Conn., $32,972; F. A. Biggi, Brooklyn, $33,900.

Road 1274, Quogue-South Hampton, Suffolk County, 10.50 miles: Town of Southampton, N. Y., $113,068; Eggleston & Garthwaite, Yonkers, $114,209; Galway & Company, New York City, $119,635; John L. Hayes Constr. Co., Inc., Yonkers, $121,776.

Road 1081, South Argyle-Argyle, Washington County, 3.34 miles: John Crisorio, Albany, $27,354; F. A. Biggi, Brooklyn, $28,390; Brady-Oltarsch Constr. Co., Inc., New York, $29,165; Ahearn Constr. Co., Willimantic, Conn., $29,424.

Road 1223, Battenville-Salem, Washington County, 5.96 miles: E. J. Anderson, Menands, $62,261; F. A. Biggi, Brooklyn, $63,490; Ahearn Constr. Co., Willimantic, Conn., $64,210; Brown & Lowe Co., Schenectady, $66,010.

★**New York, N. Y.**—Contracts have been awarded by President, Manhattan Boro., for repaving work (bids opened May 5), to Aztec Asphalt Co., for repaving Market and Monroe Sts., $13,495; 15th St., from Ave. A to 3d Ave., $13,107; 30th St., from 8th to 9th Aves., $5,532; 32d St., from 2d to 3d Aves., $4,476; 40th St., from 2d to Lexington Ave., $7,195; to the Asphalt Constr. Co., for 176th St., from Audubon to St. Nicholas Aves., $3,004; to W. J. Fitzgerald, for Houston St., from Lafayette to Crosby Sts., $2,422, and 27th St., from 10th to 11th Aves., $11,608; and to M. Baird Constr. Co., for 32d St., from 1st to 2d Aves., $10,384; and 40th St., from 1st to 2d Aves., $10,213.

Hartford, Conn.—Bids were opened May 17 by Bd. Water Comrs. (Caleb M. Saville, Ch. Engr.), for Contract 8, constructing gravel road north of Nepaug reservoir, and in all 16 bids were received ranging in price from $26,917 to $46,320.

Following are unit prices of the 4 lowest bidders: (a) Middlesex Contr. Co., North Adams, Mass., $26,917; (b) Perini Constr. Co., Ashland, Mass., $28,397; (c) Pierson Eng. & Constr. Co., Hartford, $31,855; (d) Louis Longhi & Bro., Torrington, $31,894.

	(a)	(b)	(c)	(d)
8 acre clearing and grading road location	$50.00	$50.00	$100.00	$60.00
26,000 cu. yd. earth excav.	.24	.25	.40	.30
2,000 cu. yd. rock excav.	1.50	1.25	.50	1.20
12,800 sq. yd. 8 in. gravel surface	.25	.30	.40	.33
150 sq. yd. 8 in. Telford base	.65	.75	.50	.40
50 cu. yd. broken stone and gravel	2.00	1.20	1.00	.75
600 sq. yd. cobble gutters	.75	.60	.60	.40
700 cu. yd. dry rubble masonry and paving	2.50	3.00	3.00	2.50
50 cu. yd. rubble masonry laid in mortar	6.00	5.00	5.00	4.25
100 cu. yd. concrete masonry	10.00	8.00	7.00	8.00
1,000 lb. cast iron strainers	.05	.04	.05	.05
7,000 lb. corrugated ingot iron culvert pipe	.10	.10	.10	.09
200 lin. ft. 6 in. tile pipe	.30	.40	.25	.20
4,500 lin. ft. wooden guard rails	.30	.24	.30	.23
50 acre clearing of reservoir site	25.00	40.00	40.00	75.00
25 acre grubbing of reservoir site	50.00	75.00	40.00	75.00
16,000 cu. yd. soil excavation	.32	.35	.35	.40
10 cu. yd. removing excrementitious material	10.00	5.00	5.00	1.00
Sanitary requirements, lump sum	500.00	50.00	200.00	00.00

★**Oswego, N. Y.**—Contract awarded May 14 for 7700 sq. yds. brick pavement to J. A. Culkin, of Oswego, at $19,368. Other bids: Samuel Bonn, Syracuse, $20,745; Guy B. Dickison, Syracuse, $21,034; John Henrick, Oswego, $20,241. Chas. W. Linsley, Comr. of Wks.

★**Syracuse, N. Y.**—Contract for paving with brick Marcellus St. awarded by Bd. Contract and Supply to Guy B. Dickinson, Kirk Bldg., at $23,918.

★**Long Branch, N. J.**—Contract for furnishing gravel for city awarded by City Comn. to Atlantic Coast Sand Gravel Co., at 97½ cts. per cu. yd.

★**Westfield, N. J.**—Contract awarded by Town Council for grading and macadamizing sections of Chestnut St., Maple St., and Edgewood Parkway (bids opened May 17) to Weldon Constr. Co., Rahway, at $6,723. Chas. Clark, Town Clk.

★**Pittsburgh, Pa.**—Contract awarded May 14 for laying street car tracks and wood block paving on Bridge No. 2, Allegheny River, to A. V. Purnell, 507 Janella St., Pittsburgh, at $31,744. Hyatt M. Cribbs, County Controller.

Baltimore, Md.—Following are lowest bids opened by City Paving Comn. for paving:

Contract No. 115: Sheet asphalt, wood block and granite block in railway area (all 6 in. concrete base). Lowest bidder, P. Flanigan & Sons, of Baltimore, as follows: Sheet asphalt, ½ in. top, binder extra, old base, 70 cts. per sq. yd.; sheet asphalt, 1½ in. top, 1½ binder, $1.60 per sq. yd.; sheet asphalt, 1½ in. top, 1½ in. binder, old concrete base, $1 per sq. yd.; granite blk. in railway area, asphalt fill, sand cushion, $3.40 per sq. yd.; wood blk., city area, asphalt fill, mortar cushion, $3.40 per sq. yd.; wood blk., railway area, asphalt fill, mortar cushion, $3.40 per sq. yd.; redressed gr. blk., railway area, cement fill, sand cushion, $2.10 per sq. yd.; redressed gr. blk., railway area, asphalt fill, sand cushion, $2.30 per sq. yd.; sheet asphalt, railway area, 1½ in. top, 1½ in. binder, $1.65 per sq. yd.; granite block liners, $3.75 per sq. yd.; vitr. block gutters, $2.10 per sq. yd.; armored concrete curb, 60 cts. per lin. ft.; old stone curb redressed and reset, 30 cts. per lin. ft.; binder, $4 per ton; grading, city and railway areas, 50 cts. per cu. yd.; total, $9,327. Next 2 lowest bids: Baltimore Asphalt Block & Tile Co., Baltimore, $10,340.50; American Paving & Contracting Co., Baltimore, $11,914.45.

Contract No. 116—Granite block repaving: Lowest bidder, I. J. Smith & Co., Inc., Richmond, Va., as follows: Granite block paving, old block, 4 in. concrete base, cement fill, sand cushion, 90 cts. per sq. yd.; on 6 in. base, $1.10 per sq. yd.; armored concrete curb, 55 cts. per lin. ft.; old stone curb redressed and reset, 30 cts. per lin. ft.; grading, city area, 90 cts. per cu. yd.; grading, railway area, $1 per cu. yd.; total, $14,423. Next 3 lowest bids: P. F. Reddington, Baltimore, $15,828; Geo. Long Contr. Co., Baltimore, $17,514; American Paving & Contr. Co., $17,532.

Contract No. 117—Granite block paving: Lowest bidder, I. J. Smith & Co., Richmond, Va., as follows: Sheet asphalt, 1½ in. top, 1½ in. binder, old base, $1.75 per sq. yd.; granite block paving, asphalt fill, sand cushion, 6 in. concrete base, city area, $3.13 per sq. yd.; on railway area, $3.23 per sq. yd.; armored concrete curb, 55 cts. per lin. ft.; old stone curb and circles, 30 cts. per lin. ft.; grading, city area, $1.20 per cu. yd.; grading, railway area, $1.30 per cu. yd.; total, $23,394. Next 3 lowest bids: M. J. Beach Co., Baltimore, $23,394; American Paving & Contr. Co., $23,999; Geo. Long Contr. Co., $24,043.

★**Towson, Md.**—Contracts awarded May 13 for macadam paving as follows: Chesapeake Ave., to P. Reddington & Sons, 321 E. St. Paul St., Baltimore, at $3,720; Bellona Ave., to U. D. Rich, 3205 Clifton St., Baltimore, at $6,634; Malvern Ave., to C. B. Bowen, Towson, at $3,612. W. G. Sucro, Roads Engr., Towson.

★**Wayne, W. Va.**—Contract awarded by Co. Comrs. May 1 to Brubaker Contr. Co., Huntington, for constructing 3 miles of hard road between Four Pole and Twelve Pole, Ceredo Dist., at $54,000.

★**Anderson, S. C.**—Contracts for paving awarded by Street Paving Com. to Southern Paving Constr. Co., Chattanooga, Tenn., 30,000 sq. yds. brick pavement on Main St., at $1.95 per sq. yd. and for 65,000 sq. yds. asphalt on Market, Church, River, McDuffie, Greenville, Whitner and Calhoun Sts., at $1.42 per sq. yd.

★**Charleston, S. C.**—Contract awarded for paving (bids opened May 18) as follows: To Simons-Mayrant Co., Charleston, for creosoted wood block, at $2.11 per sq. yd., and to Louis Lawson, Norfolk, Va., for sheet asphalt at $1.43 per sq. yd. J. H. Dingle, City Engr.

★**Russellville, Ala.**—Contract for constructing 18 miles gravel pike road between Russellville and Red Bay awarded by Franklin County Court of Revenue to Newell Bros., Birmingham, at about $50,000.

★**Alexandria, La.**—Contract for constructing 26 miles gravel road in Alexandria Ward awarded by Police Jury to Wetzel & Co., Rossier, at $83,596 (bids opened May 3).

★**Jeffersonville, Ky.**—Contract for constructing the Balie L. Burtt Rd. awarded by Bd. County Comrs. to F. O'Neil at $16,894.

★**Norwood, O.**—Contract awarded May 10 for paving Baker Ave. with bituminous macadam to Geo. Murdock, of Norwood, at $5,335. D. F. Frayser, Clk. Bd. of Control.

★**Wauseon, O.**—Awarded May 18 by Co. Comrs. for constructing stone roads as follows: Clinton Rd., to Doan & Langenderfer, Toledo, $7,875; Frank Rd., to Kelly Constr. Co., Bryan. $25,000; Dover Rd., to Zeller & Drum, Swanton, $6,699. W. W. Ackerman, Co. Aud.

★**Boonville, Ind.**—Comrs. Warrick County have awarded contract for constructing Boonville and Millersburg rock road to S. R. Adams & Co., Princeton, at

Evansville, Ind.—Bid of Roetzel, Euler, Merritt Constr. Co. for paving 17 streets with asphalt is recommended for award.

Ann Arbor, Mich.—See under "Paving and Roads" "Prospective Construction."

Illinois.—Following are lowest bids opened by State Highway Comn., May 20, for State Aid road work, as follows:

Saline County, Sect. A, concrete road, Ernest Berns, Terre Haute, Ind., $9,000.

Edgar County, Sect. C brick Allen Parrish, Paris, $2,780.

Pope County, Sect. A, bridges, Chas. Gullett, Golconda, $1,205.

Henry County, Sects. A and B, Grohne Contr. Co., Joliet, concrete, $19,330.

McHenry County, Sects. C, D, E and F, concrete, C. A. Williston, Chicago, $11,370.

Edwards County, Sect. A, gravel, G. W. and C. G. Morgan, Cami, $2,724.

Marion County, Sect. A, bridge, F. S. Nichols, Flora, $5,650.

Marion County, Sect. C, bridge, M. R. McCall, Sandoval, $970.

Marion County, Sect. B, concrete, H. H. Hall Constr. Co., East St. Louis, $4,890.

Schuyler County, Sect. B, road and bridge, Zastrow & Lashmet, Jacksonville, $1,054.

★**Milwaukee, Wis.**—Contracts for paving (bids opened May 14 by County Highway Comn.) have been awarded as follows (all concrete paving, county to furnish cement): Beloit Road, to Kroening Constr. Co., Majestic Bldg., Milwaukee, grading 35 cts. per cu. wd., paving 53 cts. per sq. yd., extra for reinforcing 6 cts. per. sq. yd.; Layton Ave., to Milwaukee General Constr. Co., 857 8th Ave., Milwaukee, grading 45 cts., paving 59 cts. (reinforced); Lake Road, to Paul Gollnick, 887 23d Ave., Milwaukee, grading 33 cts., paving 59.5 cts., and N. Cape Road, to Delta Contr. Co., Escanaba, Mich., grading 38 cts., paving 78 cts.

★**Cedar Rapids, Ia.**—Contract awarded for paving Park and Washington Aves., etc. (bids opened May 21) to Ford Paving Co., Cedar Rapids, at $42,615, using asphaltic concrete. L. J. Stomy, City Clk.

★**Storm Lake, Ia.**—Bids were opened May 18 for concrete paving on Lake Ave. and 5th St., from plans of Bruce, Standeven & Boynton, of Omaha, Neb., and contract has been awarded to Moore Sieg Constr. Co., of Waterloo, at the following bid: 51,920 sq. yds. concrete pav., Class B, $1.32½; 2750 ft. 6 x 20-in. curb.

30 cts.; 15,300 ft. combined curb and gutter, 50 cts.; 31 gutter crossings, $6; 42 curb inlets, $12.50; 22 grate inlets, $12.50; 985 ft. 10-in. vitr. sewer pipe, 40 cts.; 955 ft. 8-in. vitr. sewer pipe, 35 cts.; total, $79,502. Next 3 lowest bids on this class of paving: Miracle Constr. Co., $79,508; Hanlon & Okes, $81,607; C. B. McNamara, $82,072.

★**Center City, Minn.**—The County Auditor writes bids were opened May 17 for about 19,865 ft. road work and all bids for construction of County Job No. 1, State Road No. 1, were rejected and work will be done by Day labor. Contract for construction of part of a county road has been awarded to Gilette & Gatzow, Wyoming, Minn.

★**Great Bend, Kan.**—Contract awarded for 23,580 sq. yds. asphaltic concrete pavt. (bids opened May 21) to Watts & Amerman, Salina, at $55,400. Other bidders: Downard-Gilkerson, Ardmore, Okla., $58,176; Kaw Paving Co., Topeka, $60,125; J. R. Ramsey, Lawrence, $58,556. H. A. Rowland, Engr., McPherson.

★**Kalispell, Mont.**—Contract for concrete curbs and sidewalks for 1915 awarded by City Council to Two Miracle Concrete Cor., Kalispell.

★**Alvin, Tex.**—Contract for constructing about 35 miles gravel and shell roads leading into Alvin awarded to Haden & Co., Galveston; cost about $150,000.

★**Concrete, Wash.**—Contract awarded May 11 for constructing concrete roadway on Main St., to Skagit Constr. Co., Mt. Vernon, at $10,512. Next 3 lowest bids: Wentzel & Doyle, Seattle, $11,024; H. W. Troutman, Bellingham, $11,025; M. E. Norris, $11,078. Chas. Ramsdell, Town Clk.

★**Ellensburg, Wash.**—Contract has been awarded by County Comrs. Kittitas County for paving and repaving 19,535 sq. yds. Dolarway Road to Washington Paving Co., Savage-Scofield Bldg., Tacoma, at $1 per sq. yd.

★**Ennis, Tex.**—Briggs Reager, City Secy., writes that following are unit prices of the Kaw Paving Co. of Topeka, Kan., sucessful bidder for paving in the Fire District (bids opened May 3):

1,575	cu. yd. extra excavation (1000 ft. haul)	$ 0.35
7,518	lin. ft. 24 in. concrete gutter	.25
5,445	lin. ft. 18 in. concrete curb	.35
169	lin. ft. special curb (retaining wall)	.60
515	lin. ft. 3x8 in. oak header in place	.15
11	each standard manholes, complete	30.00
25	each standard inlets, complete	20.00
1	standard catchbasin, complete	25.00
1,135	lin. ft. 12 in. No. 2 vitr. tile pipe	.60
828	lin. ft. 15 in. No. 2 vitr. tile pipe	.85
100	lin. ft. 18 in. No. 2 vitr. tile pipe	1.05
672	lin. ft. 20 in. No. 2 vitr. tile pipe	1.28
336	lin. ft. 24 in. No. 2 vitr. tile pipe	1.80
240	sq. yd. 6 in. 1:2:4 concrete pavt.	1.12
26,470	sq. yd. 3 in. vert. fibre brick pavt., 4 in. base, asphalt filler	1.86

Total, $57,940.

★**Seattle, Wash.**—Contracts for paving awarded by Bd. Public Works as follows: Admiral Way to Independent Asphalt Co., Northern Bank Bldg., Seattle, at $230,358; Brooklyn Ave. to Washington Paving Co., Savage-Scofield Bldg., Tacoma, at $50,560, and for concrete crubs on L. Coluccio, 1642 Lane St., at $10,881.

Lowest bid opened by King County Comrs. May 17 for constructing Permanent Highway No. 9 submitted by A. Sloane Bros., Box 348, at $21,259.

★Contracts awarded by Co. Comrs. for grading and graveling as follows: Auburn Enumclaw Road, 9 miles, to Washington Paving Co., Tacoma, at $42,194; and Renton-Issaquah Road, 10 miles, to Henry Brice, $63,445. Arthur P. Denton, County Engr.

Walla Walla, Wash.—M. A. Power, City Clk., writes that contracts have been awarded for paving as follows:

★To H. L. Wilson Co., Walla Walla, for S. 9th St., 6760 sq. yds. 3-in. asphaltic concrete base, 1½-in. bituminous top, 98 cts. per sq. yd., total cost, $6,624; Whitman St., 13,276 sq. yds. crushed rock base, 2-in. bituminous top, 92 cts., $18,974; and Isaac St., 3745 sq. yds. 3-in. asphaltic concrete base, 1½-in. bituminous top, 98 cts. sq. yd.; total, $3,670.

★To Warren Constr. Co., Portland Ave., for North Second St., 3602 sq. yds. gravel, bitulithic, 4-in. base, 2-in. top, $1.42 per sq. yd.; total $6,325, and Palouse St., 14,083 sq. yds. bitulithic resurface, $1.18 per sq. yd.; total, $18,720.

Lowest bid opened by County Comrs. for constructing Permanent Highway No. 8 submitted by Cascade Constr. Co., North Yakima, at $16,948.

Eugene, Ore.—Lowest bids opened by City Council for paving with asphaltic wearing surface 6th Ave W. submitted by Clark & Henery Co., Portland, at $1.48 per sq. yd.

★**San Mateo, Cal.**—Contract for paving upper part of San Mateo Park awarded by Bd. Trustees to McGilivray Constr. Co., at $71,000.

STREET CLEANING AND GARBAGE DISPOSAL

PROPOSED WORK.

Buffalo, N. Y.—Plans being prepared by Howard L. Beck, City Archt., Municipal Bldg., for a garbage disposal plant, 40 x 190 ft., 3 story and basement, to be built by city at an estimated cost of $100,000. Francis G. Ward, Comr. Pub. Wks.

BIDS DESIRED.

Washington, D. C.—Until June 1, for furnishing and delivering f.o.b. cars, Washington, D. C., 2 squeege machines, for use of Street Cleaning Dept. Address Comrs. D. C. (Oliver Newman, Chmn.)

PRICES AND LETTINGS.

★*Indicates award of contract.*

New York, N. Y.—Following are bids opened May 21 by Dr. S. S. Goldwater, Comr. Health, for furnishing materials and removal of night soil, offal, dead animals, etc., from the several Boroughs of the City of New York, for a period of 5 years beginning July 1, 1915: Product Mfg. Co., $44,730; Chas. Van Etton, $48,910.

Sheboygan, Wis.—Bids recently received for constructing garbage incinerator: DeCarie Incinerator Co. (steel stack), $8,800, or brick chimney, $9,950; McGuire Incinerator Co., $8,785. C. U. Boley, City Engr.

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS

PROPOSED WORK.

Waterfront Improvement — Brooklyn, N. Y.—Plans proposed by the Dock Dept. for improvement and development of Jamaica Bay have been approved by the Sinking Fund Comn. to include Mill Basin, between 56th and 61st Sts., Jamaica Bay and the Fresh Pond Creek Basin improvement.

Dike—New Brunswick, N. J.—All bids opened May 10 by Thos. J. Headler, Executive Dir. Entomology Bldg., New Brunswick, for building 6000 ft. of dike along western bank of Hackensack River and for building dike facing certain sluice boxes and gates and installation of same along western bank of Hackensack River have been rejected.

Dam—Harrisburg, Pa.—State Legislature reported to have passed bill providing for a storage reservoir at headwater of Youghiogheny River.

Port Improvement—Philadelphia, Pa.—The House has passed the bill appropriating $500,000 for the Port of Philadelphia.

Bulkhead—Philadelphia, Pa.—Council on May 20 authorized Director of Wharves and Ferries to expend a portion of the $250,000 appropriated by the State for improving facilities for construction of a wooden bulkhead along Schuylkill River, east bank, between Penrose Ferry bridge and Hoyt St.

Flood District Improvement—Pittsburgh, Pa.—Mayor Jos. G. Armstrong has sent an ordinance to City Council calling for issuing $240,000 bonds to take care of proposed flood district, including Penn Ave., Duquesne Way and side streets running from 11th to Water Sts., including damages to abutting properties.

Dam—Sharon, Pa.—State Legislature has passed the bill providing for construction of Pymatuning dam to conserve the water supply of Shenango River; it will cost about $1,000,000, the money to be expended over a period of 5 years.

Coal Pier—Baltimore, Md.—Tentative plans are being prepared for a 700-ft. coal pier to be built at Curtis Bay by the Baltimore & Ohio Railroad Co., to cost approximately $1,000,000.

Drainage Bonds—Bartow, Fla.—Drainage bonds in the sum of $256,000 will be sold June 15 by Bd. Superv., Peace Drainage Dist., 77 Main St., Bartow.

Ditch—Marysville, O.—See "Paving and Roads."

Channel Work—Chicago, Ill.—Chief Engineer of Sanitary Dist. authorized to prepare plans and advertise for bids for flattening slopes of North Shore Channel between Wilmette pumping station and W. Railroad Ave. All material excavated to be removed entirely from site of work.

Flood Protection—Kansas City, Mo.—Council has passed ordinance appropriating $25,000 for employment of engineers to survey Turkey Creek, also to pay the cleaning out bed of creek and opening sewers which empty into it.

Creek Improvement—Kansas City, Mo.—Council is considering an appropriation of $20,000 for improvement of Turkey Creek.

Dike — Everett, Wash.—The County Comrs. will soon let contract for construction of dike for the Grand Marsh Dist., the work to cost about $40,000 and $45,000.

Fill, Etc.—Seattle, Wash. — Estimates reported filed with Bd. of Pub. Wks., A. L. Valentine, Chmn., for Oxbow sanitary fill, to cost $86,957; and seawall on Railroad Ave., $104,408.

Dam—Los Angeles, Cal.—In order to carry out city's plans for municipal power development, the Public Service Comn. has asked City Council to provide $100,000 for work of constructing Long Valley Dam in northern end of Ownes River Valley.

River Improvements, Etc.—Sacramento, Cal.—The Government has signed bills including the following: Appropriating $250,000 for improving navigation conditions in Sacramento, San Joaquin and Feather Rivers; a bill creating a levee district to be known as Sacramento River West Side Levee Dist. and providing for levees along west bank of river; one creating the Knights Landing Ridge drainage district, and the other validating the organization of reclamation district No. 108.

Drainage—Harper, Utah.—David Rosenbaum, W. H. Barnard and others of Harper, are reported to have petitioned County Comrs. at Brigham City for the creation of a drainage district.

Hydro-Electric Plant—Sandpoint, Idaho.—The Trestle Creek Power Co., reported to have decided to construct a 680-hp. hydro-electric plant at Trestle Creek; also a 50-ton concentrator. Ralph Reinertson, of Spokane, Wash., reported interested.

BIDS DESIRED.

Harbor Improvements—Massachusetts.—Until June 2 for constructing at Warrens Cove, Plymouth, a concrete sea wall containing about 375 cu. yds. concrete; at Chicopee, on east bank of Connecticut River, a concrete retaining wall, about 800 cu. yds. concrete and furnishing and placing about 160 tons stone riprap in front of same. Address State Bd. Land & Harbor Comrs., State House, Boston (Wm. F. Williams, Ch. Engr.).

Pier—Brooklyn, N. Y.—Until June 8 for Contr. 1454—Furnishing material and constructing a pier near foot of 29th St., Boro. Brooklyn. Security required $46,000. Address R. A. C. Smith, Comr. Docks, New York City.

Rip Rap and Repairing Seawall—New York, N. Y.—Until June 25 for furnishing and placing rip rap and repairing sea wall at Governor's Island, N. Y.; advertised in Engineering Record. Address U. S. Engr. Office, Room 707, Army Bldg., 39 Whitehall St., New York, N. Y.

Shore Protection Works—Stone Harbor, N. J.—Until June 7 for shore protection works, including construction of about 8250 ft. timber bulkhead with brush and stone apron, about 4000 ft. pile, brush and stone jetties, about 220,000 cu. yds. sand fill, 17,000 cu. yds. gravel cover fill, and other appurtenant work, advertised in Engineering Record. Harry E. Weir, Engr. in Charge of Work, Wildwood, N. J. Address Leo F. McCraven, Boro. Clk.

Wharf—Southport, N. C.—Until June 25 for constructing, complete, new wharf, etc., for Cape Fear (N. C.), Quarantine Station, near Southport. Address Jas. A. Wetmore, Acting Superv. Archt., Washington, D. C.

Repair to Bank Protection—Augusta, Ga.—Until June 21 for repairs to bank protection of Savannah River at Augusta, advertised in Engineering Record. Address Col. W. C. Langfitt, Corps. Engrs., U. S. A., Savannah, Ga.

Wharf Sheds—Jacksonville, Fla.—Until June 10, for furnishing material and constructing steel wharf sheds on the municipal piers. Address the Port Comn. (F. W. Bruce, Ch. Engr., Realty Bldg.)

Levee—New Orleans, La.—Until June 1, according to press reports for constructing Lucy Levee. Approximate contents, 215,000 cu. yds. Address State Bd. Engrs., New Orleans.

Levee Work—Vicksburg, Miss.—Until June 5 for constructing about 660,000 cu. yds. levee enlargement. Address Third Mississippi River Dist., P. O. Box 404.

Lock Gates, Valves, Etc.—Vicksburg, Miss.—Until June 15 for furnishing steel lock gates, Poiree trestles, operating machinery, etc., aggregating about 450,000 lbs., advertised in Engineering Record. Address U. S. Engineer's Office, Vicksburg Dist., Vicksburg, Miss.

Power House at Dam 29—Ashland, Ky.—Until June 15 for building a power house at Dam 29, Ohio River, near Ashland, Ky., advertised in Engineering Record. Address Lieut. Col. H. Jervey, Corps. Engrs., U. S. A., Cincinnati, O.

Retaining Wall—Cincinnati, O.—Until June 18 for constructing concrete retaining wall in Copper Creek on west side of Reading Pike, opposite Cooper Ave., Sycamore Township. Address Co. Comrs. (Albert Reinhardt, Clk.).

Levee—Piqua, O.—Reported desired until June 4 for constructing Shawnee levee in Piqua, to cost about $35,000. Address Clerk County Comrs. at Troy.

Steel for Lock Construction—Sault Ste. Marie, Mich.—Until June 30 for furnishing and delivering at Sault Ste. Marie, Mich., about 325 tons of steel, etc., for construction of fourth lock advertised in Engineering Record. Address U. S. Engineer's Office, 337 Federal Bldg., Detroit.

Ditch Improvement — Elbow Lake, Minn.—Until June 11 for constructing county Ditch No. 18, requiring 5700 ft. open ditch, 14,151 cu. yds. excav., 2000 ft. tiled ditch, and cost $2,399; Consolidated Judicial Ditch No. 2, 175 cu. yds. open ditch, 25,000 tiled ditch, cost $11,441. Address C. M. Nelson, Co. Aud. J. E. Cole, Engr. in Charge, Morris, Minn.

Dredge, Etc.—Kansas City, Kan.—Until June 7 for construction and delivery of an hydraulic dredge, discharge pipe line and accessories for the improvement of the Kansas River, advertised in Engineering Record. Address P. J. Broll, Secy. Bd. Directors Kaw Valley Drainage Dist., Kansas City, Kan.

Levee Work — Caldwell, Tex. — Until June 26 for constructing about 360,000 cu. yds. in earthwork in levees and a small amount in drain ditches. Address R. S. Newsom, Chmn. Comrs. Burleson Co. Improv. Dist. No. 1, at office of County Clerk, Caldwell. J. C. Nagle, Improvement Engr., Austin.

Drainage — Cheney, Wash. — Reported until June 10 for the reclamation of 900 acres of lake bed in which flood waters accumulate. Plans provide for 14 miles of open ditches, including lateral drains. Probable cost $15,000. Address Ingersoll & Bugby, Engrs., Old Natl. Bank Bldg., Spokane.

Ditch—Everett, Wash.—Until June 14 for construction of drainage district No. 4. Engineer, H. P. Niles, of Everett. Address, County Auditor.

Drainage—North Yakima, Wash.—Reported until June 11 for drainage construction in Dist. No. 24. Engineer's estimate, $11,387; also supplying 15,562 ft. vitr. clay or concrete pipe, to be used in enlarged Dist. No. 13; also 15,562 ft. vitr. clay or concrete pipe for construction work in Drainage Dist. No. 4. Address Chas. E. Barrett, Co. Aud.

Ferry Landing — Seattle, Wash. — Reported until June 9 for reconstructing West Seattle Ferry Landing. Address Port of Seattle Comn. (C. E. Remsberg, Secy.).

Dam, Etc.—River Glade, N. B.—Reported desired June 1 for constructing a dam (with bridge connected therewith) over Pollet River at Sanitarium, River Glade, Westmoreland County. Address Provincial Government, Fredericton, N. B.

Extension to Pier—Cap Chat, Que.—Until June 18 for constructing extension to training pier at Cap Chat. Address R. C. Desrochers, Secy. Dept. Pub. Wks., Ottawa, Ont.

Boat Harbor—Ottawa, Ont.—Reported desired until June 4 for constructing a boat harbor, at North Lake, Kings Co. P. E. I. Address R. C. Desrochers, Secy. Dept. Pub. Wks., Ottawa, Ont.

Wharf, Etc.—South Baymouth, Ont.—Reported desired until June 1 for constructing a wharf and warehouse at South Baymouth, on Manitoulon Island, Township of Tehkummah, Dist. Algoma East. Address R. C. Desrochers, Secy. Dept. Pub. Wks., Ottawa, Ont.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Sea Wall—Bridgeport, Conn.**—Contract awarded May 10 for constructing 450-ft. sea wall to McHarg-Barton Co., 171 Madison Ave., New York, at $12,967. Other bids: E. Embleton, New York, $14,222; R. M. Brown, New York, $14,538; T. A. Scott Co., New London, $16,686; Toole & Sunderlin, Bridgeport, $16,991.

★**Dock—Dunkirk, N. Y.**—Contract reported awarded by Common Council for building Sects. 1 and 2 of public dock to D. L. Taylor & Co., of Medina, at $67,884.

River Work—Rochester, N. Y.—Lowest bid opened May 19 by Bd. of Contract and Supply for deepening of Genesee River between Central Ave. dam and a point south of the aqueduct has been submitted by Lathrop, Shea & Henwood, Buffalo, at $315,200. F. T. Elwood, City Engr.

★**Dredging—Estherwood, La.**—Contract was awarded May 15 at office of 5th Ward Drainage Dist. No. 1, Estherwood (Ellis Hoffpaur, Pres.), for dredging about 25 miles gravity drainage canals, estimated 300,000 cu. yds., to G. B. Zigler, of Jennings, at 8.95 cts. per cu. yd. Next 3 lowest bids: Henry J. Cox Co., Alexandria, 9.44 cts.; Louis Angers, Kaplan, 10 cts.; J. S. Clark, Abbeville, 10.5 cts.

★**Stone — Vicksburg, Miss.** — Contracts awarded by U. S. Engr. for furnishing stone for bank revetment work (bids opened May 14) as follows: To U. S. Stone Co., Southern Trust Bldg., Little Rock, Ark., 47,500 tons for Bolivar, Ashbrook Neck and Panther Forest, and to Foster Creighton Co., Independent Life Bldg., Nashville, Tenn., for 27,500 tons on barges for Greenville, Grand Lake and Fitlers.

Timber Cribs, Etc.—Harbor Beach, Mich.—Following are lowest bids opened May 20 by Lieut.-Col. Mason M. Patrick, Corps Engrs., U. S. A., for constructing and placing 2 timber cribs and replacing with concrete timber superstructure, breakwater at Harbor Beach: (a) Burk, Smith & Nelson, Muskegon, $64,787; (b) John Ginzel, Detroit, $66,109; (c) Greiling Bros. Co., Green Bay, Wis., $73,172; (d) Benj. Douglas Co., Detroit, $73,935.

	(a)	(b)	(c)	(d)
Remove wrecks of 2 old cribs and provide foundations for 2 new cribs (lump sum)	$3,000.00	$2,000.00	$2,200.00	$5,700.00
90 M ft. framing, etc., and completing 2 timber cribs	12.00	12.00	25.00	95.00
1,630 lin. ft. remove old superstructure	2.00	3.00	4.00	7.75
35,000 lbs. bolts, tie rods and washers	.04	.05	.04	.04
9,000 cu. yds. concrete sections	4.25	4.50	4.90	3.00
12,000 bbls. cement	1.42	1.27	1.32	1.45
7 mooring posts, ea	25.00	20.00	40.00	75.00
7.28 M ft. white oak fenders	80.00	70.00	80.00	100.00

Lock—Sault Ste. Marie, Mich.—Following are bids opened May 24 by Lieut.-Col. Mason M. Patrick, Corps Engrs., U. S. A., Detroit, for construction of concrete masonry for Fourth Lock at Sault Ste. Marie: (a) Oscar Daniels Co., 531 Unity Bldg., Chicago, Ill., $1,010,480; (b) Maryland Dredging & Contr. Co., 1515 Fidelity Bldg., Baltimore, Md., $1,026,880; (c) Greiling Bros. Co., Green Bay, Wis., $1,048,180; (d) Grant Smith & Co., St. Paul, Minn., $1,143,510; (e) The T. A. Gillespie Co. Pittsburgh, Pa., $1,146,190; James O. Heyworth, Harvester Bldg., Chicago, Ill., $1,162,849; Cook Constr. Co., 557 Gilfillan Bldg., St. Paul, Minn., $1,178,550; Thomas Harmon Co., Railway Exchange Bldg., St. Louis, Mo., $1,197,650; Larkin & Sangster, Seneca Falls, N. Y., $1,231,060; Dravo Contr. Co., Pittsburgh, Pa., $1,241,820; Bates & Rogers Constr. Co., 875 Old Colony Bldg., Chicago, Ill., $1,261,420; Great Lakes Dredge & Dock Co., Chicago, Ill., $1,289,780; Cleveland & Sons Co., Brockport, N. Y., $1,410,820.

*Unit prices of 5 lowest bidders, a, b, c, d and e (contract awarded to (a) Oscar Daniels Co.):

	*(a)	(b)	(c)	(d)	(e)
4,000 cu. yds. excav	$2.50	$1.00	$3.00	$2.75	$3.00
24,000 lin. ft. drilling rock	.35	.25	.35	.45	.25
135,000 cu. yds. concrete, Class A	3.85	3.90	3.90	4.89	3.95
37,000 cu. yds. concrete, Class B	3.85	3.90	4.60	4.70	4.40
210,000 bbls. cement, furnish and lay	1.30	1.40	1.32	1.15	1.75
8,000 cwt. square cold twisted steed bars	3.50	3.00	3.25	2.80	4.00
4,000 cwt. anchor rods in rock	4.25	5.00	4.00	3.10	5.50
1,000 cwt. wire cloth for reinforcement	5.00	4.00	5.00	3.60	4.00
720 cwt. steel rails, I-beams, and foundation bolts, with nuts, etc	....	4.00	4.00	3.00	4.50
400 cwt. sheet lead stop waters	10.00	8.00	10.00	14.00	8.50

★**Ditch Work—Litchfield, Minn.**—Contract awarded May 17 for constructing Ditch No. 36 to Duffy & McGraw, Litchfield, at $16,916. Other bids: Chas. Dutcliff, Litchfield, $17,613; Jas. R. Wilson, Bay City, Mich., $18,571; The Construction Co., Duluth, $18,866; O. B. Olsen, 1616 4th Ave. S., Minneapolis, $18,995. A. O. Palmquist, Co. Aud.

Irrigation Work—Saco, Mont.—Lowest bids opened May 12 by U. S. Reclamation Service, Malta, canal excav., located about 10 miles from Saco. on Great Northern Ry., submitted by Grandall Bros., Carmangay, Alta., at following bid: Excav., 95,000 cu. yds., Class 1, 13.5 cts; 500 cu. yds., Class 2, 30 cts.; 50 cu. yds., Class 3, 70 cts.; 120,000 sta. yds. overhaul, 2 cts.; total, $15,410. Next 3 lowest bids: Jas. O'Connor, Dodson, $15,615; Dooling Bros., Tampico, $15,800; W. J. Hoy Co., St. Paul, Minn., $17,850.

★**Ditch—Donna, Tex.**—Contract awarded for constructing ditch and levee to Mission Dredging Co., Mission, at 12.75 cts. per cu. yd. (bids opened May 17). Other bids: Perry Clark, McAllen, 15.9 cts.; H. D. McNeil, LaFeria, 15 cts. G. B. Meriweather, Chmn., Hidalgo County Drainage Comrs.

Power Plant—Ellensburg, Wash.—Following are reported to be lowest bids opened May 14 for construction complete of power plant, including building, equipment, turbine and remodeling existing plant: Kraner Co., Portland, Ore., $55,479; Spokane Eng. Co., Spokane, $47,217 (not including turbine); Hunt Mark Co., Spokane, $58,577, alternate $59,987; Chas. C. Moore & Co., Mutual Life Bldg., Seattle, $72,745; Butler Constr. Co., Central Bldg., Seattle, $54,185 (not including turbine), and P. E. McHugh, Tacoma, $62,998.

★**Concrete Canal—Modesto, Cal.**—Contract awarded May 4 by Modesto Irrigation Dist. (C. S. Abbott, Secy.) for constructing an earthen fill with concrete lined canal across Indian Hill Gulch, to Peart Bros., of Oakdale, at following bid: 43,500 cu. yds. earth fill (hydraulic), 24 cts.; 475 cu. yds. reinforced concrete, canal lining, $16.45; 50 lin. ft. 24-in. concrete drain pipe, $2; 300 sq. yds. riprap, $1.50; 600 cu. yds. excav., $1.15; total, $19,494. Other bids: San Francisco Bridge Co., San Francisco, $29,515; Tibbitts-Pacific Co., San Francisco, $26,667; Mesmer & Rice, Los Angeles, $24,690.

Needle Valve Outlets—Phoenix, Ariz.—Following are 4 lowest bids opened May 12 by U. S. Reclamation Service, 605 Federal Bldg., Los Angeles, Cal., for furnishing needle valve outlets for Roosevelt reservoir, Salt Lake Project: Rosedale Fdry. & Mach. Co., Pittsburgh, Pa., $6,952; Power & Milling Machry. Co., New York, $7,116; Steacy-Schmidt Mfg. Co., York, Pa., $7,485; Nordburg Mfg. Co., Milwaukee, Wis., $7,480.

ELECTRIC RAILWAYS

PROPOSED WORK.

Lawrence, Mass.—Plans are being contemplated by Bay State Ry. Co., R. S. Goff, Gen. Mgr., Boston, to build railway between Lawrence and Lowell.

Brooklyn, N. Y.—The City of New York, through the Public Service Comn. for First Dist., 154 Nassau St., New York, will soon purchase track material for the New Utrecht Ave. elevated railroad in Brooklyn, a branch of the 4th Ave. subway.

Public Service Comn. for First Dist. New York has directed its Chief Engineer to prepare plans for construction of the Utica Ave. subway in Brooklyn. This subway will be a branch of the Eastern Parkway subway, which will be operated by the Interborough Rapid Transit Co. It will be a 2-track underground railroad, extending from Eastern Parkway down Utica Ave. to Flatbush Ave.

New York, N. Y.—A new route for connection between Bronx Park branch of the existing subway at Simpson St. and proposed Pelham Bay branch of Lexington Ave. subway, in Bronx Boro., has been adopted by Public Service Comn. for the First Dist. and sent to the Bd. of Estimate. The Comn. advised the Bd. that necessary money for construction of said connection should not be deducted from existing funds appropriated to carry out construction provisions of the Dual System contract, and that if connection is built will be necessary for Bd. of Estimate and Apportionment to appropriate additional money.

Port Jervis, N. Y.—Plans are being made by Port Jervis Traction Co. to extend its line to Milford, Pa.

Philadelphia, Pa.—Finance Com. has reported favorably the ordinance providing for the $6,000,000 transit loan. Construction work may start in August.

Gretna, La.—Edw. L. Slattery and associates are planning to construct a 2-mile electric railway from ferry landing at Gretna to point on New Orleans Southern and Grand Isle Ry.

Iowa City, Ia.—Surveys are being made for Iowa City-Muscatine Interurban Ry. between Iowa City, Muscatine and West Liberty. A. D. Bowen, Muscatine is interested.

Keokuk, Ia.—Surveys have been made by Keokuk-Jefferson City Electric Ry. Co. for electric railway to be constructed between Keokuk, Ia., and Jefferson City, Mo. H. W. Knight, Chicago, Ill., is interested.

Ingleside, Ark. — Ingleside & East Arkansas Ry. Co. plans to build electric railway from Ingleside to point in Pointsett County via Fisher. C. B. Richmond, St. Louis, Mo., is interested.

Dallas, Tex.—Texas Traction Co. plans to extend line from Waco to Austin and San Antonio. R. B. Stichter, Gen. Mgr., Dallas.

Salem, Ore.—Plans being made by Willamette Valley Southern Electric Ry. Co. to build an extension of its line from Mt. Angel to Salem. F. W. Hild, Gen. Mgr., Portland.

BIDS DESIRED.

Brooklyn, N. Y.—Until June 15 for constructing Sect. No. 1 of Route No. 29, part of the Eastern Parkway Rapid Transit R.R. (Nostrand Ave. branch), Boro. Brooklyn, by Public Service Comn. for the First Dist., 154 Nassau St., New York, N. Y., advertised in Engineering Record.

New York, N. Y.—Until June 11 for a supply of 5,000,000 lbs. steel rails and corresponding quantities of ties, spikes and other material needed for track equipment, by Public Service Comn., 154 Nassau St., New York.

Brooklyn, N. Y.—Following are bids opened May 18 by Public Service Comn. for First Dist., 154 Nassau St., New York, for constructing Sect. No. 2 of Route No. 49, part of the Culver Rapid Transit R. R., Boro. Brooklyn: (a) Oscar Daniels Co., Woolworth Bldg., $863,775; (b) Snare & Triest Co., Woolworth Bldg., $867,390; (c) A. L. Guidone & Co., Inc., 131 E. 23d St., $877,097; (d) Phoenix Bridge Co., 149 William St., $878,260; McClintic-Marshal Co., $885,676; Post & McCord, $894,192; Ft. Pitt Bridge Wks. of Pittsburgh, $898,184; Conners Bros. Co,, Inc., $908,569; T. A. Gillespie Co., $914,204; Connex Eng. & Constr. Co., $918,126; Arthur McMullen, $922,637; E. E. Smith Contr. Co., $929,759; Rogers & Hagerty, Inc., $933,861; Norton & Gorman Co., $936,800; Max Raymond, $937,045; Jobson & Gifford Co., $982,587; H. B. Converse Co., $1,051,006.

Unit prices of 4 lowest bids (a), (b), (c) and (d):

Item		(a)	(b)	(c)	(d)
1B	22,200 cu. yd. column excav.	$1.15	$1.50	$1.33	$1.70
1C	11,100 cu. yd. railroad duct excav	1.15	1.50	1.40	1.30
6	8,100 cu. yd. concrete masonry	4.00	5.90	7.80	6.05
9	10 cu. yd. brick masonry	15.00	22.00	15.00	20.00
12	14,900 lin. ft. timber piles	.10	.40	.40	.30
13	2 M. ft. timber foundation	40.00	70.00	54.00	60.00
17E	290 lin. ft. vitr. drain pipe, 4 in	.50	.70	.20	.25
18A	313,500 duct. ft. railroad ducts	.16	.13	.15	.105
19	13,950 ton riveted steel	48.35	45.30	46.50	47.90
20	550 ton steel beams and shapes	48.35	45.30	46.50	47.90
21	5 ton steel rods and bars	50.00	60.00	60.00	55.00
25	240 ton miscl. iron castings	40.00	51.00	50.00	55.00
30H	500 sq. yd. street surface restored	3.00	1.50	1.70	1.50
I	300 lin. ft. new bluestone curb, 5 in	.90	1.25	1.00	.90
II	100 lin. ft. new bluestone curb, 4 in	.80	1.10	.90	.80
O	6,000 lin. ft. for restoring old curb	.15	.35	.35	.30
75C	22,800 lin. ft. electric (overhead trolley) R. R.	1.00	2.00	.97	1.05
75F	100 lin. ft. depressing street surface R. R.	7.15	3.00	4.50	2.50
75G	100 lin. ft. lateral movement of surface tracks.	4.15	4.00	4.50	4.00
79	100 lin. ft. 6 in. water pipe	.80	1.00	.22	1.00
80	100 lin. ft. 8 in. water pipe	1.00	1.00	.23	1.25
82	300 lin. ft. 12 in. water pipe	1.50	1.50	.32	1.50
83	100 lin. ft. 16 in. water pipe	2.00	1.50	.41	1.75
84	100 lin. ft. 20 in. water pipe	3.00	2.00	.45	2.50
90	100 lin. ft. 4 in. c. i. gas pipe	.70	.60	.15	.75
91	100 lin. ft. 6 in. c. i. gas pipe	.85	1.00	.22	1.00
92	100 lin. ft. 8 in. c. i. gas pipe	1.00	1.00	.30	1.25
96	400 lin. ft. 20 in. c. i. gas pipe	2.00	2.00	.50	2.00
100	10 lin. ft. new c. i. hob and spigot pipe	35.00	35.00	40.00	50.00
101	2 lin. ft. new c. i. hob and spigot pipe, special	70.00	60.00	50.00	80.00
127	2,000 duct ft. elect'l ducts and conduits in place.	.35	.35	.75	.40
127A	100 lin. ft. fibre ducts	.40	.67	.75	.65
27E	100 lin. ft. fibre ducts	.35	.50	.75	.65

PRICES AND LETTINGS.

★**Kalamazoo, Mich.**—Michigan Ry. Co. has contracted with Michigan Ry. & Engineering Co. to build 2½-mile cut-off from Yorkville on Battle Creek-Allegan Division to Gull Lake.

RAILROADS

PROPOSED WORK.

Philadelphia, Pa.—Council on May 20, authorized execution of contracts with the Reading Ry. Co. and the Pennsylvania Railroad Co. for removal of grade crossings at Green Lane on the line of North Penn, and at Highland, Seminole, Hartwell and Chelton Aves., on the line of the connecting Railway.

Jacksonville, Ga.—A charter reported to have been granted to the Ocmulgee Valley Railroad Co. to build a railroad 22 miles long from Lumber City to Jacksonville. Capital $100,000. Incorporators: C. F. Smith and J. H. Wilcox, of Lumber City; J. O. Bland and W. A. Clark and others.

Savannah, Ga.—A charter has been granted to the Midland Railroad Co. to construct a railroad from Savannah to Milledgeville. Capital stock $1,000,000. Incorporators: W. M. Exley, J. D. Johnson, W. H. Webb and others. Principal office of road will be in Savannah.

BIDS DESIRED.

Warren, Ariz.—Until June 10 by John C. Greenway, Warren, for constructing a railroad 38 miles in length from the railroad at Gila Bend South to a point near Ajo. R. H. Jones, Ch. Engr., Gila Bend, Ariz.

PRICES AND LETTINGS.

★**Buffalo, N. Y.**—Contract awarded by Grade Crossing Comn. to Lathrop Shea & Henwood Co., Ellicott Sq. Bldg., for construction of concrete and steel subways under Pennsylvania R.R. tracks at Lord and Smith Sts., at $71,988.

PUBLIC BUILDINGS AND SCHOOLS

PROPOSED WORK.

Amherst, Mass.—High School Bldg. Com. has selected Clarence P. Hoyt, of Boston, to prepare plans for the new high school to be erected on Lessey St.

Binghamton, N. Y.—Common Council has approved plans for the Helen St. and New St. high schools.

Buffalo, N. Y.—Bonds amounting to $1,248,000 have been sold and includes the $600,000 bonds for the hospital to be erected on the West Farm site.

New York, N. Y.—Plans being prepared by Chas. A. Rich and F. Mathesius, Jr., 320 5th Ave., for a 5-story, 200 x 200 ft., students building to be erected for Barnard College at 119th St. and Bway.

Watertown, N. Y.—Plans being prepared by A. F. Lansing, of Watertown for brick grammar school, to cost $65,000, and D. D. Kieff, of Watertown, for addition to high school, to cost $24,000.

Camden, N. J.—Site selected on which it is proposed erecting the high school. Address Bd. Educ.

Glen Ridge, N. J.—A municipal building costing $100,000 is contemplated. Address Borough Council.

Princeton, N. J.—Four dining halls are to be erected at Princeton Univ. at a cost of $500,000.

Allentown, Pa. — Until June 9 for $225,000 school improvement bonds. Address T. P. Wenner, Secy. School Dist., Administration Bldg., 31 S. Penn St.

Lancaster, Pa.—Plans being prepared by C. E. Urban, Woolworth Bldg., for a 2-story brick and stone school, to cost $150,000.

Natrona, Pa.—Citizens voted $75,000 bonds for erecting a high school.

Natrona, Pa.—Citizens voted $75,000 bonds for erecting a high school in Harrison Township.

Philadelphia, Pa.—State Armory Bd., Harrisburg, has approved plans and will soon let contract for erecting the squadron armory at 32d and Markets Sts.; cost about $400,000.

Sayre, Pa.—School Bd. has authorized an addition costing $25,000 to be erected at the Elmer Ave. School. Bonds will be issued.

Swarthmore, Pa.—The Secretary Bd. of Trus. of Swarthmore College, writes no definite plans have yet been prepared for proposed buildings.

Wheeling, W. Va.—Plans desired June 14 for school, 2 stories above basement, fireproof construction, to contain from 16 to 18 rooms and an auditorium seating 500. No excavation for basement. Ventilating and heating system to be installed in separate building; entire cost complete not to exceed $100,000, including ventilating, heating and plumbing. Address Frank Stanton, Clk. Bd. Educ.

Columbia, S. C.—School bonds amounting to $250,000 have been sold, proceeds to be used to erect a high school, also for an extension to the Logan Building on Elmwood Ave., plans for which are being prepared.

Albany, Ga.—Auditorium and school bonds amounting to $80,000 have been sold.

Thomasville, Ga.—See "Water Works."

Bastrop, La.—Citizens voted $55,000 bonds to erect a new school.

Clarksdale, Miss.—See "Water Works."

Covington, Ky.—Reported plans prepared by Saml. Hannaford & Sons of Cincinnati, O., for the Memorial Hospital which it is proposed erecting here at a cost of $100,000. Dr. John Risk Meek, may be able to give further information.

Ludlow, Ky. — Plans about completed for the school to cost $30,000. Address Bd. Educ.

Cedarville, O.—And. Jackson, Clk. Bd. Educ., writes school is to be 2 stories, 135 x 80 ft., brick, fireproof, and cost $65,000. Frank L. Packard, of Columbus, Archt.

Lisbon, O.—High school bonds amounting to $70,000 have been sold. F. L. Packard of Columbus, Archt.

Otway, O.—Reported Bd. Educ. contemplates erecting a combination elementary and high school, probably 3 story brick fireproof.

Bloomington, Ind.—Bd. Trus. of Indiana Univ. has engaged Daggett & Daggett, of Indianapolis, to prepare plans for the $150,000 gymnasium.

East Lansing, Mich.—Plans being prepared for a gymnasium to cost $150,000, which is to be erected at the Michigan Agricultural College.

Enid, Mich. — Citizens of McMillan Township voted $30,000 bonds to erect a school here.

Grand Rapids, Mich.—An armory costing $120,000 is to be erected here. Maj. Earl R. Stewart may be able to give further information.

Madrid, Ia. — Citizens voted $30,000 bonds to erect a school. C. Fred Carlson, Secy. School Bd.

Oakdale, Ia.—State Bd. Control, Iowa City, intends erecting at the Oakdale Sanitarium a $60,000 addition to the building.

Ironton, Minn.—Plans for high school are to be prepared by E. F. Bromhall, of Duluth; cost $100,000.

Omaha, Neb.—See "Sewerage and Sewage Disposal."

Butte, Mont.—The plans being prepared by Wilson & Cutting, Electric Bldg., Butte, for proposed school, call for a 3-story brick building, 140 x 70 ft., to cost $85,000. J. E. Rheim, Clk. School Dist.

Miles City, Mont.—B. Riveness, of Miles City, engaged to prepare plans for the addition to the high school, to be 3 story brick and concrete, 124 x 64 ft., and cost $60,000. Address School Bd.

Dallas, Tex.—School Bd. has decided to erect a high school in Oak Cliff; cost $125,000. W. B. Ittner, of St. Louis, Mo., Archt.

Tulsa, Okla.—Geo. Winkler, of Tulsa, is architect for proposed high school.

Seattle, Wash.—The sum of about $75,000 has been bequeathed to the city by the late W. C. Osborn, for erecting an auditorium, to be known as "Osborn Hall."

Tacoma, Wash.—School Bd. has decided to postpone until next summer the construction of the proposed stadium high school gymnasium. Heath & Gove, Archts., National Realty Bldg., Tacoma.

Walla Walla, Wash.—Reported plans for St. Mary's Hospital, which is to cost $150,000, are to be prepared by Robt. F. Tegan, of Portland, Ore.

Astoria, Ore.—The Port Commission has authorized their engineer to prepare plans and specifications and make estimates of cost of constructing the grain elevators, warehouses, etc., at Smith Point. Reported about $750,000 is to be spent on this work by the Comn.

Los Angeles, Cal.—Plans and specifications wanted for schools as follows: Until June 5—A school on extension of Country Drive, brick and concrete construction; a school at Venice and De Soto Sts., brick and concrete construction, consisting of about 9 rooms; Amelia St. School, brick and concrete construction, consisting of about 18 rooms. It is proposed that the total cost af said buildings, including architect's fees and cost of ventilating and heating shall not exceed $375,000, $30,000 and $30,000 respectively.

Oakland, Cal.—Carnegie Corporation has given $140,000 to this city to erect 4 libraries, each to cost $35,000.

BIDS DESIRED.

West Springfield, Mass.—Until June 3, for erecting high school at Park and Elm Sts. Probable cost, $95,000. Fowle & Harding, Archts., Columbus Bldg., Westfield. Address the Bldg. Com. (H. W. Egan, Chinn.)

Brooklyn, N. Y.—Until June 14 for the general contract, plumbing and gas fitting and steam heating of a pavilion on the grounds of the Kingston Ave. Hospital, Boro. Brooklyn. Address S. S. Goldwater, Pres. Bd. Health, New York City.

Ft. Terry, N. Y.—Until June 21 for constructing double set officers' quarters at this post, advertised in Engineering Record. Address Constructing Quartermaster, Ft. H. G. Wright, N. Y.

Mt. Vernon, N. Y.—Until June 24 for construction, complete (including mechanical equipment, lighting fixtures and approaches), of U. S. Post Office at Mt. Vernon. Address Jas. A. Wetmore, Acting Superv. Archt., Washington, D. C.

Rochester, N. Y.—Until June 14 for erecting new Normal Training School on University Ave. Edwin S. Gordon, School Archt. Address J. S. Mullan, Secy. Bd. Educ.

Bayonne, N. J.—Until June 4 for erecting the Hudson County Parental School at Bayonne. Separate bids desired as follows: Masonry, carpentry, etc.; plumbing, heating, electric work. Address Bd. Trus. Parental Home, County of Hudson at Jersey City.

Leonia, N. J.—Reported desired until June 1 for erecting 2-story addition to the high school; cost $50,000. Address Louis D. Winkleman, Clk. Bd. Educ.; Ernest Sibley, Archt., Palisade, N. J.

Newark, N. J.—Until June 8 for erecting an administration building in Branch Brook Park, including heating, plumbing, etc., cost $75,000; H. Van Buren Magonigle, Archt., 101 Park Ave., New York, N. Y.,; also same time and place separate bids for constructing a grandstand and judges' stand at Weequhaic Park. Wm. P. Field, Engr., 763 Broad St., Newark. Address A. Church, Secy. Essex County Park Comn., Newark.

Athens, Pa.—Reported until May 31 for erecting 3-story high school brick, concrete and steel, 75 x 80 ft., and a 2½-story brick and timber grammar school. Address Bd. Educ. Pierce & Bickford, Archts., Elmira, N. Y.

California, Pa.—Until June 1 for erecting a 2-story brick fireproof municipal building. Address Rich. Hawthorne, Boro. Secy.

Pittsburgh, Pa.—Until June 3 for erecting a male asylum building at the City Home and Hospital, Marshalsea Station, on P. C. C. & St. L. Ry.; also installing steam heating, plumbing and electric wiring of same. John P. Brennan, City Archt., North Side Municipal Bldg. Address John J. McKelvey, Dir. Dept. Pub. Charities, Pittsburgh.

Rankin, Pa.—Until June 14 for general construction, also plumbing and electrical work, for new school on Kenmawr Ave. Carlyle & Sherrer, Archts., Jenkins Arcade Bldg., Pittsburgh. Address H. W. Peters, 124 3d St., Rankin, Secy. School Bd.

Fairmont, W. Va.—Until May 31 for erecting a brick church and parsonage for Central Christian Church. Address C. H. Snider, Archt., Peoples Natl. Bank Bldg.

Charlotte, N. C.—Until July 2 for construction, complete (including mechanical equipment and approaches), 2-story and basement stone and brick-faced building for U. S., Post Office and Courthouse, Charlotte. Address Jas. A. Wetmore, Acting Superv. Archt., Washington, D. C.

Mims, Fla.—Until June 7, for erecting a graded school at Mims. A. E. Lewis, Archt., Real Estate Bldg., Miami. Address County Bd. Pub. Instruction at Titusville. (A. E. Macy, Secy.)

Carthage, Tenn.—Until June 1, for erecting a 2-story brick school. C. K. Colley, Archt., Life Casualty Bldg., Nashville. Address A. C. Read, Mayor.

Chattanooga, Tenn.—Until May 31 for erecting a 3-story and basement, brick, reinforced concrete building for Baroness Erlanger Hospital. W. H. Sears and J. D. Alsup, Assoc. Archts., 821 James Bldg. Address E. H. Sholar, Pres. Bd. Trus.

Lancaster, Ky.—Until June 2, for alterations and addition to County Courthouse. Weber, Werner & Adkins, Archts., Cincinnati, O. Address County Judge.

Barberton, O.—About June 25 for erecting 2-story brick school for Norton Township, to cost about $20,000. Address Roger O. Miller, Clk., Norton Town School Bd., Barberton.

Canton, O.—Until June 28 for erecting a fireproof school costing $85,000. Address W. C. Lane, Clk. Bd. Educ. C. C. & A. L. Thayer, New Castle, Pa., Archts.

Columbus, O.—Until June 15 for furnishing material and constructing greenhouses for the Horticulture and Forestry building. Jos. N. Bradley, University Archt. Address Bd. Trus., Ohio State Univ. (Carl E. Steeb, Secy.).

Reported competitive plans desired until June 1 for a 1-story recreation building, to cost $35,000. Address Recreation Dept., City Hall.

Minerva, O.—Reported desired until June 11 for erecting fireproof high school; separate bids for plumbing and heating. Address And. Dietrich, Clk. Bd. Educ.; Howard & Nerriam, Archts., Columbus.

Radnor, O.—Reported desired until June 19 for erecting 2-story and basement, 60 x 98-ft. school. Address Reese W. Jones, Clk. Bd. Educ., Radnor Township, Radnor; W. R. Powell, Archt., 1106 Hippodrome Bldg., Cleveland.

Springfield, O.—Until June 18 (readvertisement), by Bd. Educ. (W. H. Holmes, Clk.), to furnish material and erect a 12-room school (remodeling present county infirmary) in Northern Heights addition to Springfield. Robt. C. Gotwald, Archt., Springfield.

Urbana, O.—Until June 14 for furnishing material and erecting high school; also a 3-room addition to a 1-room building in Dist. No. 11. F. S. Rusk and Cree Sheets, Archts., 145 N. High St., Columbus. Address Robt. G. Duncan, Clk. Bd. Educ., Salem Township, Urbana, R. F. D. No. 3.

Detroit, Mich.—Until June 8 for erecting a school on Fort St. W., also separate bids on construction, ventilating, heating, etc. Malcolmson & Higginbotham, Archts., 404 Moffat Bldg.; Ammerman & McCall, Consulting Engrs., 1310 Penobscot Bldg. Address Chas. A. Gadd, Secy. Bd. Educ.

Grand Rapids, Mich.—Until June 14 for erecting fireproof grade school, advertised in Engineering Record. Address H. N. Morrill, Secy. Bd. Educ. H. H. Turner, Archt., Bd. Educ., 234 N. Division Ave.

Champaign, Ill.—Reported desired until June 1 for sub-bids on the Vivarium buildings, School on Educations and Ceramics Building for the Univ. of Illinois. Address A. W. Stoolman, General Contractor, Champaign.

Chicago, Ill.—Reported desired June 5 to erect a 2-story and basement school costing $30,000, for Free Thinkers' Society. Address A. F. Rusy, Archt., 1607 S. Crawford Ave.

Dorrisville, Ill.—Reported desired until June 5 for an 8-room and basement brick school for village of Dorrisville. Address Chas. Burroughs, Clk. Bd. Directors, School Dist. No. 95, town of Harrisburg.

Albion, Ia.—Reported desired until June 14 for erecting a 2-story and basement school; also separate bids for heating, plumbing and lighting. Address L. Burger, Secy. Independent School Dist. of Albion. Reimer & Herlin, Archts., Marshalltown, Ia.

Plover, Ia.—Until June 4 for erecting a school; also separate bids for heating and ventilating and plumbing. P. J. Shaw, Secy. Independent School Dist. Jas. S. Cox, Archt., Estherville.

Radcliffe, Ia.—Reported desired until June 7 for erecting public school. Address Geo. Simpson, Secy. Bd. Educ.; Proudfoot, Bird & Rawson, Archts., Des Moines.

Sumner, Ia.—Until June 7 for erecting an addition to school. Address C. Henry Granemann, Secy. Bd. Educ. J. F. Leitha, Archt., Waverly.

Alexandria, Minn.—Until June 4 (extension of date from May 28) for erecting a brick high school. Address A. A. Urness, Secy. Bd. Educ., Consolidated Independent School Dist. No. 2, Alexandria. E. F. Bromhall, Archt., 710 Alworth Bldg., Duluth.

Anoka, Minn.—Until June 3 for erecting the Franklin Grade School, 2 stories, brick and tile. Bids may be submitted on work as a whole or separately on heating, plumbing, etc. Address Mrs. D. S. Gow, Clk. Bd. Educ. S. A. Wager, Archt., 1012 Germania Life Bldg., St. Paul.

St. Paul, Minn.—Until June 10 for erecting a tuberculosis sanitarium for the Counties of Polk and Norman, including mechanical equipment and deep well. Sund & Dunham, Archts., 514 Essex Bldg., Minneapolis. Address State Bd. Control, St. Paul.

Gardner, Kan.—Reported desired until June 8 for erecting 2-story and basement school to cost $28,000. Address B. R. Perkins, Secy. Bd. Educ.; W. Williamson, Archt., Topeka.

Lincoln, Neb.—Until June 5 for erecting a dairy building, also for equipment for same, at the Univ. Farm, near Lincoln; cost approximately $125,000. Address J. S. Dales, Secy. Univ. Nebraska, Station A, Lincoln.

Ellendale, N. D.—Until June 4 for erecting a 2-story and basement brick and reinforced concrete school, including mechanical equipment. Address B. R. Crabtree, Clk. Bd. Educ., Independent School Dist. Gilbert R. Horton, Archt., Citizens Natl. Bank Bldg., Jamestown, N. D.

Warwick, N. D.—Until June 14 for erecting a 2-story brick school, including mechanical equipment. Gilbert R. Horton, Archt., Citizens Natl. Bank Bldg., Jamestown. Address E. L. Hugelen, Clk. School Bd., Free Peoples School Dist. No. 29.

Kansas City, Mo.—Until June 4 for furnishing material and repairing, making alterations and reconstructing a 2-story brick building and additions to be built thereto on 19th St. and Baltimore Ave. Madorie & Birdsall, Archts., Reserve Bank Bldg. Address Bd. Pub. Wks. (Edw. F. Webster, Acting Secy.).

Oregon, Mo.—Reported desired until June 3 for erecting 2-story and basement school to cost $25,000. Address J. T. Thatcher, Secy. Bd. Educ.; W. G. Schrage, Archt., 43 E. 32d St., Kansas City.

Okmulgee, Okla.—Until June 1 for erecting an addition to East Side School, including installation of heating and plumbing. Smith, Rea & Lovitt, Archts., Finance Bldg., Kansas City, Mo. Address A. F. Boone, Clk. Bd. Educ.

Ft. Worden, Wash.—Until June 11 for erecting a concrete warehouse. Address Constructing Q. M., U. S. A., Ft. Worden.

Hyde Park, Cal.—Until June 7 (readvertisement) for erecting group of grammar school buildings; also separate bids for heating, ventilating, plumbing and electric work, etc. G. A. Howard, Jr., Archt., Grant Bldg., Los Angeles. Address L. Wilhelm, Clk. Bd. School Trus.

Los Angeles, Cal.—Bids desired for furnishing material and erecting schools as follows:

Until June 3, a school at 8515 S. Pike Ave.; also Santa Monica Boule. and Van Ness Ave.

Until June 5, a school at 127 E. Ann St. Amount available, $70,000.

Until June 10, a school at Echo Park Ave. and Baxter St. Amount available, $120,000. Address Wm. A. Sheldon, Secy. Bd. Educ.

PRICES AND LETTINGS.

★*Indicates award of contract.*

Concord, N. H.—Following are four bids opened May 17 by Superv Architect, Washington, D. C., for constructing extension to U. S. Post Office: Jas. A. Miles & Son Co., Worcester, Mass., $42,987; C. M. Leach, Boston, Mass., $47,883; Westchester Eng. Co., White Plains, N. Y., $54,155, and Frank M. Weakley, Canton, O., $56,231.

★**Durham, N. H.**—Contract awarded to F. W. Cunningham & Sons, of Portland, Me., for erecting a men's dormitory at New Hampshire State College; cost $50,000.

★**Wellesley, Mass.**—Contract awarded to J. W. Bishop Co. of Worcester for erecting a Carnegie library addition at Wellesley College to be 2 story, limestone, fireproof and cost $100,000. Henry D. Whitfield, of New York, Archt.

★**Bridgeport, Conn.**—Contract awarded to Dowling & Bottomly of Bridgeport at $123,200 for erecting the county court house addition to the C. S. Eames & Co. of Bridgeport for plumbing and heating of same at $16,404.

★**Lansingburg, N. Y.**—Contracts awarded as follows by Directors of Leonard Hospital, North Troy for erecting an addition to the hospital to cost $42,000: Masonry, Wm. S. Hamil Co.; carpenter work, W. E. Martin & Co.; marble and slate work, Conroy Marble & Tile Wks.; heating apparatus, J. J. Horan & Co.; plumbing, John F. Knaupp; sheet metal work, O'Brien & Simpson. Bidders all of Troy. Wm. E. Clarke, Archt., Troy.

★**Jersey City, N. J.**—Contract awarded to John J. Egan, Jersey City, for erecting the St. Mary's School on 3d St. at $107,700. John T. Rowland, Jr., 98 Sip Ave., Archt.

★**Millville, N. J.**—Contract reported awarded to Berry Goodwin Co., Philadelphia, Pa., for erecting a 2-story brick and stone 120 x 160 ft. school. Cost about $70,000. Arnold Moses, Archt., 136 S. 4th St., Philadelphia.

★**Trenton, N. J.**—Contract awarded to S. W. Mather & Son for erecting the Junior High School at $218,000; heating and ventilating to John Nesbit, Philadelphia, Pa., at $24,520; plumbing, John A. Dowling, Trenton, at $9,965; electric wiring J. F. Buchanan, Philadelphia, Pa., at $4,388.

★**Mount Penn, Pa.**—Contract for erecting addition to school awarded to Chas. Schlegel at $58,000. Harry Maurer, Archt., Reading.

★**Pittsburgh, Pa.**—Contract awarded to Riter Conley Mfg. Co., Grant St., for structural steel and for reinforcing steel to J. Willis Dalzell, House Bldg. (representing Republic Iron Wks.), needed in the construction of the Schenley High School; contractor for general construction awarded to Thompson Starrett Co.

★**Towanda, Pa.**—Contract awarded to Warren Constr. Co., Jamestown, N. Y., for erecting the school, at $75,292.

★**Washington, D. C.**—Contract awarded by Comrs. D. C. to Melton Constr. Co., Washington, for erecting School 175, at $121,000.

★**Greenville, S. C.**—Contract awarded to Jameson & Morris of Greenville for erecting jail costing $30,000.

★**Fellsmere, Fla.**—Contract awarded to A. F. Sanders, of Fellsmere, for erecting the public and high school at $29,200.

Louisville, Ky.—Lowest bid opened May 12 by Bd. Public Safety for erecting the station house at 28th, Main Sts. was submitted by John Greiner & Son at $23,785.

Alliance, O.—All bids opened Mar. 1 by Superv. Archt., Washington, D. C., for constructing the U. S. Post Office here have been rejected.

Cincinnati, O.—Following are lowest bids opened May 4 by Dirs. University of Cincinnati, Burnet Woods Park, Cincinnati, for erecting woman's building at university, from plans of a A. Lincoln Feicheimer, Archt., Lyric Theater Bldg: excav., brick, cut stone, masonry, D. Hummel Bldg. Co., $40,500; concrete, Roos Bros., $24,920; sheet metal and roof, Harkner & Fowler, $1,696; iron and steel, Columbia Iron Wks., $8,237; carpenter work, Marcus Bldg. Co., $25,280; plastering, W. C. Brungar, $6,900; plumbing, Wm. Hillenbrand Co., $8,257; marble slate tile, Buckeye Co., $7,087; electric work, Beattie Electric Co., $3,965. (Bidders all of Cincinnati.)

★**Etna, O.**—Contract awarded May 18 for erecting grade and high school to Moor Bros., Columbus, at $29,320. Next 3 lowest bids: E. E. Beckett, Columbus, $32,907; Geo. B. Emswiler, Etna, $34,740; D. E. Henke & Co., Zanesville, $34,779. S. Parker Clk. Bd. of Educ. F. S. Rusk and C. Sheets Archts., 145 N. High St., Columbus.

★**Lisbon, O.**—Contracts for erecting 8-room centralized school in Fairfield Township, Columbiana County, awarded as follows: Total cost, $38,980; mason work, E. P. Linderberger; reinforced concrete, Heller Bros., Youngstown; carpenter work, Peter Nerone; plumbing, Harry C. Teal; electric wiring, G. A. Webster Co.; roofing, Philip Carey Co. Archt., E. R. Thompson, Youngstown.

★**Savannah, Ill.**—Contract awarded to Schmidt Bros., Chicago for erecting school (bids opened May 17) at $36,954. J. B. Schuster, Secy. Bd. Educ.

★**Browns Valley, Minn.** — Contract awarded by Library Assoc. to furnish material and erect a concrete and stucco public library to McClure Contr. Co., McClure Bldg., St. Paul. E. Hirt, Jr., Archt., St. Cloud.

★**Independence, Kan.**—Contract awarded May 12 for erecting city hall to F. D. Brewster, of Independence, at $33.935. G. H. Krienhagen, City Clk.

★**Sioux Falls, S. D.**—Contract awarded May 17 by Bd. Educ. (W. B. Fuller, Clk.) for erecting South Side Grammar School to Sioux Falls Constr. Co., Sioux Falls. Patton, Holmes & Flinn, Archts., 8 S. Dearborn St., Chicago, Ill.

★**Antelope, Cal.**—Contract for erecting the reinforced high school and dormitory for the Antelope Valley Union High School Dist. awarded to Mann-Knox Constr. Co., of Los Angeles, at $27,299.

★**Sonora, Cal.** — Contract awarded to McLeran & Petersen, of San Francisco, for erecting the 2-story county hospital at $23,355. Wm. Mooser, Archt., Nevada Bank Bldg., San Francisco.

Park City, Utah.—Lowest bid opened May 13 by Superv. Archt., Washington, D. C., for constructing the U. S. Post Office was from Campbell Bldg. Co. of Utah, Salt Lake City, at $22,460.

PRIVATE BUILDINGS

PROPOSED WORK.

Boston, Mass.—Fidelity Trust Co. will erect on State St. and Chatham Row an 11-story bank building costing $60,000.

New York, N. Y.—Plans being prepared by Neville & Bagge, 105 W. 40th St., for a 12-story brick, limestone and terra cotta apartment house to be erected at West End Ave. and 75th St. for Charmion Constr. Co.; cost $500,000.

Plans filed for the following buildings: 6-story brick apartment house at 161st St. and Riverside Drive, for Melvin Constr. Co., cost $750,000, Young & Wagner, Archts., 347 5th Ave.; three fireproof buildings for Mt. Sinai Hospital at 5th Ave. and 99th St., one 9 stories and two 3 stories, cost $450,000, Arnold W. Brunner, Archt., 101 Park Ave.; 1-story brick public market at 95th St. and Bway. for Vincent Astor, cost $200,000, Tracy & Swartout, Archts., 244 5th Ave., Jas. McWalters & Sons, 1497 Bway., Builder; two 5-story brick tenements at Beck St. and Leggett Ave. for Macy Constr. Co., cost $120,000, Jacob M. Felson, Archt., 1130 Bway.; 5-story brick tenement at Fairmont Pl. and Southern Boule. for H. C. Jackson Realty Co., cost $50,000, Kreymborg Architectural Co., Archts., 1029 E. 163d St.; two 5-story brick tenements at 198th St. and Grand Concourse for J. L. S. Bldg. Co., cost $125,000, Neville & Bagge, Archts., 105 W. 40th St.; two 6-story brick tenements at Webster Ave. and 169th St. for Sikora Realty Co., cost $100,000, Moore & Landseidel, Archts., 3d Ave. and 148th St.; five 5-story brick tenements at Faile and Aldus Sts. for B. & W. Bldg. Co., Inc., cost $250,000, Young & Wagner, Archts., Inc., 347 5th Ave.; 5-story brick tenements at Decatur Ave. and 195th St. for Mittner Bros., Inc., cost $50,000, John P. Boyland, Archt., 2526 Webster Ave.

Plans completed by Wm. M. Farrar, 1269 Bway., for a 12-story and sub-basement fireproof printing building, to be known as the Caxton Building, and to be erected at 229 to 239 W. 28th St.

Plans prepared by Schwartz & Gross, 347 5th Ave. for a 16-story printing building to be erected by Julius M. Cohn, 341 5th Ave., at 232 W. 26th St.; cost $350,000.

Plans being prepared by Herman Lee Meader, 200 W. 33d St., for a 12-story limestone, brick and terra cotta loft building to be erected at 138 W. 32d St.

Englewood, N. J.—Preliminary plans being prepared by J. Martin Haenke Co., Inc., 15 Broad St., New York, for a brick and stucco residence and garage to be erected here at a cost of $100,000.

Elizabethtown, Pa.—Plans for the 5 memorial hospital buildings to be erected at the Free Masons Home are to be prepared by Guy King and E. A. Wightman, of Philadelphia.

Farrell, Pa.—Plans being prepared by J. L. Decker, First Natl. Bank Bldg., for an office building to cost $40,000.

Reading, Pa.—Plans prepared by Alex. F. Smith, 1039 Penn St., for a granite and limestone church which Christ Evangelical Congregation intends erecting at 11th and Robeson Sts.

Jacksonville, Fla.—Plans have been approved by the Bldg. Com. of St. John's Church for a parish house which is to be cost $30,000. W. A. Bours, Chmn. Bldg. Com.

Birmingham, Ala.—A. L. Fulenwider, First Natl. Bank Bldg., intends erecting at 5th Ave. and 17th St. a 3-story brick hotel, to cost $50,000.

Nashville, Tenn.—McKendree Church (Dr. M. M. Cullom, Pres.) plans erecting an 8-story office and store building on lot in front of the church.

Oconomowoc, Wis.—Plans prepared by Julius F. Drager, of Oshkosh, for the $25,000 church which the St. Paul's Lutheran Church intends erecting at Lake and Pleasant Sts.

Springfield, Mo.—N. Gosney, will erect on St. Louis and N. Jefferson Sts. a 3-story stone and reinforced concrete building costing $65,000.

St. Louis, Mo.—Oscar A. Elmo, 5666 Waterman Ave., intends erecting at 5524 Waterman Ave. three 3-story brick and stone apartment houses costing $90,000.

Tacoma, Wash.—Tacoma Furniture & Outfitting Co. will, according to reports, erect a 6-story brick business building at 1146 Commerce St.; cost $100,000.

Walla Walla, Wash.—Plans being prepared by Osterman & Siebert, Walla Walla, for pressed brick and terra cotta Eiler Theatre to be erected at a cost of $40,000.

BIDS DESIRED.

Wabash, Ind.—Until June 5 for erecting church. Address Thos. F. Kelly, Secy. Bd. Trus. First Evangelical Church. Saml. Plato, Archt., Marion.

Chicago, Ill.—Until June 10 for erecting 19-story hotel for Y. M. C. A., at 818 S. Wabash Ave.; building is to be steel and tile construction, exterior of gray brick and terra cotta. Address R. C. Berlin, Archt., 19 S. La Salle St., Chicago.

Ames, Ia.—Reported until June 5 for erecting 4-story and basement hotel costing $100,000. H. Munn and P. Sheldon, Ames, owners; Proudfoot, Bird & Rawson, Archts., Des Moines.

Spencer, Ia.—Until June 17 for erecting a Masonic Temple, including heating, plumbing, etc. Address E. Taggart, Secy. Masonic Temple Assoc. John D. Chubb, Archt., Chicago, Ill.

Omaha, Neb.—Reported desired until June 1 for erecting an 8-story newspaper building for World-Herald Publishing Co.; cost $300,000. Address R. Kimball, Archt., 503 McCague Bldg.

Brantford, Ont.—Until June 9 for erecting a 4-story departmental store. Address W. C. Livingston, Brantford; Angus & Angus, Archts., North Bay.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Framingham, Mass.**—Contract awarded to J. W. Bishop Co., of Worcester, for erecting the car barn for Boston & Worcester Street Ry., to cost $100,000.

★**Northampton, Mass.** — Contract for erecting Sacred Heart Church awarded to Bernier & Vanasse, of Northampton, to be tapestry brick and terra cotta; cost $60,000. John Wm. Donohue, Archt., Springfield.

★**Brooklyn, N. Y.**—Contract for erecting Roman Catholic Church of the Nativity, at Classon Ave. and Madison St., awarded to P. J. Carlin Constr. Co., 1123 Bway., New York, at a cost of about $150,000. Ramond F. Almirall, Archt., 185 Madison Ave., New York.

★**New York, N. Y.**—Contract awarded to Raymond Concrete Pile Co., 140 Cedar St., for concrete piling for the foundations of a warehouse for the Eagle Pencil Co., 707 E. 13th St. Chas. A. Cowen & Co., Gen. Contractors, 1123 Bway.; Buchman & Fox, Archts., Madison Ave. and 42d St.

★Contract for erecting church at Lexington Ave. and 66th St. for Church St. Vincent Ferrer awarded to John T. Brady & Co., 103 Park Ave., and for heating and plumbing to J. F. McKeon & Bros., 882 Lexington Ave.; electric wiring and installation to E. L. Electric Installation Co., 221 W. 33d St.; cost $650,000. Bertram G. Goodhue, Archt., 2 W. 47th St.

★**Philadelphia, Pa.**—Contract awarded to Jos. Bird Co., 213 N. 11th St., for erecting a 3-story concrete, slate roof, steel rectory on Price and Sprague Sts. for Mission St. Vincent de Paul; cost $40,000.

★Contract awarded to Wm. R. Chapman, Philadelphia, for erecting on Washington and Delaware Aves., 1 and 2 story 180 x 123 ft. brick concrete and steel pipe warehouse for Chas. J. Clarke. W. Copeland Furber, Engr., 418 Walnut St.

★**Sayre, Pa.**—Contract awarded by Lehigh Valley R.R. for erecting a roundhouse costing $300,000 to Westinghouse-Kerr Co., of New York.

★**Wilkinsburg, Pa.**—Contract for erecting passenger station for Pennsylvania R. R. reported awarded to Irwin & Leighton of Philadelphia at about $125,000.

★**Baltimore, Md.**—Contract awarded to Raymond Concrete Pile Co., 140 Cedar St., New York, for placing concrete piles for foundation of warehouse for Louis Miller. Lewis Levi, Archt., Baltimore.

★**Princess Anne, Md.**—Contract awarded to Wm. P. and Lawrence L. Pusey for erecting the Antioch Methodist Church at a cost of $25,000.

★**Atlanta, Ga.**—Contract for foundation of the Connally Bldg., Whitehall and Alabama Sts., awarded to Raymond Concrete Pile Co., 140 Cedar St. Wells Bros. Co., General Contractors.

★**Alexandria, La.**—Contract awarded to Burks Bros. Constr. Co., of Hattiesburg, Miss., for erecting 6-story banking and office building for the Commercial Bank & Trust Co.; cost $120,000.

★**Logan, O.**—Contract for erecting Methodist Church, South, reported awarded to A. C. Martin at $25,100.

★**Grand Rapids, Mich.**—Contract awarded to Gentz Bros., Grand Rapids, for erecting 6-story steel constructed fireproof brick and terra cotta addition to Crathmore Hotel on Ionia Ave.; cost, $80,000.

★Contract awarded to F. Farrington & Co., of Detroit, for erecting Strand Theatre for Gilligham & Smith Enterprises. C. Howard Crane, of Detroit, Archt.

★**Galesburg, Ill.**—Contract for erecting 18 apartment building "Bartlett Terrace" awarded to Monmouth-Galesburg Constr. Co., at about $95,000.

★**Chilton, Wis.**—Contract awarded to Immel Constr. Co., of Fond du Lac, for erecting church and school, at approximately $72,000.

★**Boone, Ia.**—Contract for erecting 8-story fireproof bank building for First Natl. Bank awarded to Evans Constr. Co., of Mexico, Mo., at about $100,000.

★**Portland, Ore.**—Reported contract for erecting 3-story and basement 100 x 200 ft. reinforced concrete and mill constructed warehouse for the Stettler Box Co., at Oregon and Occident Sts., awarded to Litherland & Abrey, Beck Bldg., cost $45,000.

NEW INDUSTRIAL PLANTS

PROPOSED WORK.

Augusta, Me.—The Augusta Development Co. intends erecting a 4-story brick shoe factory, 44 x 250 ft.

Fitchburg, Mass.—Knight C. Richmond, Providence, R. I., is architect for the 4-story steel, brick and stone dyeing plant to be erected for the Parkhill Mfg. Co.

New Haven, Conn.—Plans prepared by McClintock & Craig, of Springfield, Mass., for a 4-story, 80 x 120-ft. reinforced concrete factory.

Rochester, N. Y.—Plans prepared by Mortensen & Co., 405 Lexington Ave., N. Y. City, for an addition, 65 x 116 ft., to be erected at the plant of the Genesee Brewing Co.

Philadelphia, Pa.—Contract soon to be let for erecting the 4-story concrete and brick factory for A. H. & F. H. Lippincott at 26th and Locust Sts. M. H. Dickinson, Archt., Weightman Bldg.

Memphis, Tenn.—The Illinois Central R. R. (A. S. Baldwin, Ch. Engr., Chicago, Ill.) is reported to have authorized plans prepared for car sheds to protect workmen in winter at the shops and yards at Nonconnah. Cost $200,000.

Cleveland, O.—Cleveland White Metal Co. is reported organized with Geo. Huberty, 1427 E. 45th St., as Pres., and John J. Adler Gen. Mgr., and the company intends erecting somewhere along the Belt Line a plant costing $200,000 for the manufacture of white metal. The first unit will cost $75,000, additions erected as needed.

Columbus, O.—Reported Chamber of Commerce has secured for this city the Solar Metal Products Co.'s plant, which is to consist of main factory, 100 x 235 ft., brick and steel office building, 50 x 60 ft., and paint shop, 100 x 50 ft., and is to be erected at 3d Ave. and Pennsylvania R. R.

Eau Claire, Wis.—Drummond Packing Co., intends erecting a combined abattoir and cold storage plant and a lard refinery, costing $75,000.

Mankato, Minn.—Mayer Bros. Co. intends erecting an iron works in north part of Mankato. First building is to be 80 x 400 ft.

Minneapolis, Minn.—Plant of the Sheffield Elevator Co. destroyed by fire.

Warrenton, Ore.—Reported plans under way by Spokane-Astoria Terminal Co. (Walter S. Hidden, Yeon Bldg., Portland, Ore., Pres.), for constructing grain elevators and warehouses on the water front; cost approximately $150,000.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Lewiston, Me.**—Contract awarded to H. P. Cunningham Constr. Co., of Ware, Mass., for erecting a bleach house for the Bates Mfg. Co.

★**Chicopee Falls, Mass.**—Reported contract awarded to Fred T. Ley, Springfield, for erecting at the plant of the Fiske Rubber Co. a fireproof office building, 6 stories, 60 x 160 ft., service station and branch store, 60 x 100 ft. and 2-story high and a 6-story, 110 x 310 ft., storehouse. Geo. B. Allen, of Hartford, Conn., Archt.

★**Branford, Conn.**—Contract awarded to MacArthur Concrete Pile & Foundation Co., New York, for foundation of addition to Malleable Iron Fittings Co. Philip Sellers, New Haven, Archt.

★**Waterbury, Conn.**—Contract awarded to Turner Constr. Co., 11 Bway., New York, N. Y., for erecting a 5-story 300 x 70-ft. manufacturing building for Scoville Mfg. Co., on E. Main St. and Hamilton Ave. Reinforced concrete construction with brick panel walls. Hugh L. Thompson, Archt & Engr., 57 N. Main St.

★**Brooklyn, N. Y.**—Contract awarded to H. John Thatcher & Son, 60 Park Ave., Brooklyn, for erecting a 10-story fireproof brick and concrete factory for Grand Union Tea Co.; cost about $100,000. Wm. Higginson, Archt., 13 Park Row, New York.

★**Buffalo, N. Y.**—Contract for refrigerating system in the Broadway Market awarded to Geo. T. Rea.

★**Syracuse, N. Y.**—Contract awarded to W. J. Burns Co., for erecting fireproof addition to H. H. Franklin Mfg. Co.'s plant at Gifford and Magnolia Sts.; cost, $25,000.

★**Claremont, N. J.**—Contract for Pedestal piles at the Eagle Works of the Standard Oil Co. awarded to MacArthur Concrete Pile & Foundation Co., 11 Pine St., New York.

★**McKeesport, Pa.**—Contract awarded to Raymond Concrete Pile Co., 140 Cedar St., for concrete piles for foundations at the Christy Park Works of National Tube Co. P. C. Patterson, Ch. Engr.

★**Pittsburgh, Pa.**—Contract awarded to Fetzer & Winger, Bessemer Bldg., for erecting a $25,000 building for the Columbia Ice Co. at Hamilton and Dallas Aves.

★**Youngstown, O.**—Contract awarded by Republic Iron & Steel Co. to McClintic-Marshall Co., of Pittsburgh, for erecting storage bins at the new by-product coke plant.

MISCELLANEOUS

PROPOSED WORK.

Fire Escapes, Etc.—New York, N. Y.—The Bd. of Estimate authorized issue of $10,000 corporate stock for erection of fire escapes on Research Laboratory Building on Willard Parker Hospital, and other fire safety construction.

Park Work—Syracuse, N. Y.—The Bd. of Estimate and Apportionment has approved ordinance calling for a bond issue of $93,300 for improvement of parks.

Parks and Boulevard — Cleveland Heights, O.—Citizens voted May 17 to expend $100,000 for parks, playgrounds and boulevards.

Park Bonds—Omaha, Neb.—See "Sewerage and Sewage Disposal."

Central Heating Plant—Tacoma, Wash.—Tacoma Central Htg. Co., reported to have decided to construct a $250,000 central heating plant.

BIDS DESIRED.

Cement—New York, N. Y.—Until June 10 for furnishing and delivering 12,000 bbls. Portland cement. Address Col. A. L. Smith, Q. M. Corps, Depot Q. M., Army Bldg., New York.

Boilers and Traveling Cranes—New Orleans, La.—Until June 9 for 3 horizontal return tubular boilers with settings, breeching and appurtenances, also same time and place for about 15 electric traveling cranes, 2 transfer cranes and one crane transfer and elevator, for cotton warehouse and terminal, east bank of Mississippi River; both proposals advertised in Engineering Record. Address Board Comrs., Port of New Orleans (Ernest M. Loeb, Pres.). Ford, Bacon & Davis, Engrs., 921 Canal St.

Car Tracks on Viaduct—Cincinnati, O.—Until June 2 for installation of car tracks on Hopple St. Viaduct by Philip Fosdick, Dis. Pub. Service.

Cement—Seattle, Wash.—Reported desired until June 10 for furnishing and delivering at Seattle or Honolulu, H. T., 12,000 bbls. American Portland cement. Address Depot Quartermaster's Office, Arcade Bldg., Seattle.

Lumber — San Francisco, Cal.—Until June 8 for furnishing, under Sched. 205, 600 M ft. Oregon pine, Douglas fir, merchantable rough random lengths Address Lieut.-Col. W. H. Hart, Q. M. Corps, Depot W. M., U. S. A., San Francisco.

Cement—San Jose, Cal.—Reported desired until June 7 for 50,000 bbls. cement. Address H. A. Pfister, Clk. Co. Comrs.

Steel Shapes, Steel and Iron Castings, Etc.—Panama.—Until June 11 for furnishing, according to Circular 930, steel shapes and plates, steel and iron castings, wrought iron and steel pipe, etc. (Maj. F. C. Boggs, Gen. Purchasing Agent) of Panama Canal, Washington, D. C.

PRICES AND LETTINGS.

★Indicates award of contract.

★**Foundation for Grandstand—Boston, Mass.**—Contract awarded to MacArthur Concrete Pile & Foundation Co., New York, for foundation for new Boston National League Baseball Co. grandstand. Osborn Eng. Co., Cleveland, O., Archts.

★**Foundations for Fountain—Chicago, Ill.**—Contract for foundations for fountain in Grant Park awarded to MacArthur Concrete Pile & Foundation Co., New York. H. Ellenberger & Co., General Contractors, Chicago.

Proposals

For Proposals Advertised, see Pages 42, 43 and 44.

WATERWORKS.

Bids Close.		See Eng. Record.
Jun. 1.	Tank and Tower, Cresco, Ia. Adv. May 22, 29.	May 15
Jun. 1.	Filter Plant, Ridgway, Pa. Adv. May 15, 22.	May 15
Jun. 1.	Water Wks., Wallaceburg, Ont.	May 22
Jun. 1.	Pump. Station, etc., Harrison, N. J.	May 22
Jun. 1.	Water Service Pipes, Chicago, Ill.	May 29
Jun. 1.	Filter Plant, Jersey City, N. J.	May 29
Jun. 2.	Tank, Etc., Rock Valley, Ia.	May 29
Jun. 3.	Reservoir, Ipswich, S. D.	May 22
Jun. 2.	Improv. System, Caruthersville, Mo. Adv. May 15.	May 15
Jun. 2.	Contract 9, Nepaug Reservoir, Hartford, Conn. Adv. May 15 to 29.	May 15
Jun. 5.	Improvements to Water Wks., Plant City, Fla. Adv. May 8 to 29.	May 8
Jun. 5.	Water Works, Spillville, Ia.	May 22
Jun. 7.	Pipe, Oelwein, Ia.	May 22
Jun. 7.	Pipe, Lockport, N. Y. Adv. May 29.	May 29
Jun. 8.	Water Wks., Temple, Tex.	May 29
Jun. 11.	Pumphouse and pumping plant, Ft. Sam Houston, Tex.	May 29
Jun. 14.	Intake Pipe, etc., Kenosha, Wis. Adv. May 22, 29.	May 22
Jun. 14.	Softening Plant, Napoleon, O. Adv. May 29.	May 29
Jun. 21.	Pump, Salem, Mass. Adv. May 29.	May 29

SEWERAGE AND SEWAGE DISPOSAL.

Jun. 1.	Wallaceburg, Ont.	May 22
Jun. 1.	New York, N. Y.	May 22
Jun. 1.	West Allis, Wis.	May 22
Jun. 1.	Oswego, N. Y. Adv. May 22.	May 22
Jun. 1.	Chicago, Ill.	May 29
Jun. 1.	Dayton, O.	May 29
Jun. 2.	Caruthersville, Mo. Adv. May 15.	May 15
Jun. 2.	Brooklyn, N. Y.	May 29
Jun. 2.	Baltimore, Md.	May 29
Jun. 3.	Washington, D. C. Adv. May 29.	May 29
Jun. 3.	Mt. Ayr, Ia.	May 29
Jun. 3.	Jersey City, N. J.	May 29
Jun. 4.	Cleburne, Tex.	May 22
Jun. 4.	Oshkosh, Wis.	May 29
Jun. 4.	New Glarus, Wis.	May 29
Jun. 7.	Downington, Pa. Adv. May 15, 22.	May 15
Jun. 7.	Chehalis, Wash.	May 29
Jun. 7.	Brainerd, Minn.	May 29
Jun. 8.	Beaver Falls, Pa. Adv. May 22, 29.	May 22
Jun. 8.	North Bend, Ore.	May 29
Jun. 8.	Toronto, Ont.	May 29
Jun. 8.	Walla Walla, Wash.	May 29
Jun. 9.	Struthers, O.	May 8
Jun. 9.	Maplewood, Mo.	May 22
Jun. 10.	Montrose, Pa.	May 29
Jun. 11.	Donnelsville, O.	May 29
Jun. 15.	Sisseton, S. D.	May 29
Jun. 16.	Engineer for Sewer System, Cleveland, Tenn. Adv. May 29.	May 29
Jun. 16.	Columbus, O.	May 29
Jun. 18.	Okolona, Miss. Adv. May 29.	May 29
Jun. 18.	Chicago, Ill.	May 29
Jun. 22.	Baltimore, Md.	May 29

BRIDGES.

May 25.	Indiana, Pa.	May 15
Jun. 1.	Lake Charles, La. Adv. May 15, 22.	May 15
Jun. 1.	Cincinnati, O.	May 15
Jun. 1.	Chicago, Ill. Adv. May 22.	May 22
Jun. 1.	Georgetown, Del.	May 22
Jun. 1.	Waterbury, Conn.	May 22
Jun. 1.	Savannah, O.	May 22
Jun. 1.	Watertown, S. D.	May 29
Jun. 1.	Toledo, O.	May 29
Jun 2.	Jersey City, N. J.	May 22
Jun. 3.	Washington, Ind.	May 29
Jun. 3.	Keller, Va.	May 29
Jun. 4.	Columbus, O.	May 15
Jun. 4.	Greensburg, Pa.	May 22
Jun. 4.	Harrisburg, Pa.	May 22
Jun. 4.	Idaho	May 29
Jun. 4.	Hackensack, N. J.	May 29
Jun. 4.	Enosburg, Vt.	May 29
Jun. 8.	Walla Walla, Wash.	May 29
Jun. 5.	Buffalo, N. Y.	May 29
Jun. 7.	Louisiana	May 22
Jun. 7.	Zanesville, O.	May 22
Jun. 7.	St. Jo., Tex.	May 22
Jun. 7.	Louisiana	May 15
Jun. 7.	Toronto, Ont.	May 29
Jun. 7.	Henderson, Ky.	May 29
Jun. 7.	Montezuma, Ia.	May 22
Jun. 7	Glenolden, Pa. Adv. May 29.	May 29
Jun. 7.	Shelton, Wash.	May 29
Jun. 7.	Woodstock, Va.	May 29
Jun. 8.	Stockton, Cal.	May 22
Jun. 8.	Seattle, Wash.	May 22
Jun. 8.	Ottawa, O.	May 29
Jun. 9.	New Gretna, N. J. Adv. May 22. (2 Prop.)	May 22
Jun. 9.	Hamilton, O.	May 22
Jun. 9.	Great Bend, Kan.	May 29
Jun. 11.	Red Lake Falls, Minn.	May 29
Jun. 12.	Bucyrus, O.	May 29
Jun. 14.	Ashland, O.	May 22
Jun. 14.	South Cayuga, Ont.	May 29
Jun. 14.	Washington	May 28
Jun. 15.	Laredo, Tex.	May 29
Jun. 15.	Maryland Adv. May 29.	May 29
Jun. 16.	Rome, Ga.	May 22
Jun. 19.	Hamilton, O.	May 29
Jun. 25.	Seattle, Wash.	May 29

PAVING AND ROADS.

May 31.	Clarksville, Tex. Adv. May 15, 22.	May 15
Jun. 1.	Albany, N. Y. Adv. May 15 to 29.	May 15
Jun. 1.	Washington	May 15
Jun. 1.	Brainerd, Minn.	May 15
Jun. 1.	California.	May 15
Jun. 1.	Seattle, Wash.	May 22
Jun. 1.	Newport, Wash.	May 22
Jun. 1.	Tacoma, Wash.	May 22
Jun. 1.	Berlin Heights, O.	May 22
Jun. 1.	Columbus, O.	May 22
Jun. 1.	Connecticut.	May 22
Jun. 1.	Lake Charles, La.	May 22
Jun. 1.	New London, Wis.	May 22
Jun. 1.	New York, N. Y.	May 22
Jun. 1.	Los Angeles, Cal.	May 22
Jun. 1.	Macon, Ga.	May 22
Jun. 1.	Connecticut Adv. May 29.	May 29
Jun. 1.	Dayton, O.	May 29
Jun. 1.	Troy, N. Y.	May 29
Jun. 1.	Massachusetts	May 29
Jun. 1.	Peoria, Ill.	May 29
Jun. 1.	Lake Forest, Ill.	May 29
Jun. 1.	Port Washington, Wis.	May 29
Jun. 1.	Columbus, O.	May 29
Jun. 1.	Toledo, O.	May 29
Jun. 1.	Buffalo, N. Y.	May 29
Jun. 1.	New Ulm, Minn.	May 29
Jun. 1.	Potosi, Mo.	May 29
Jun. 1.	Arkansas City, Kan.	May 29
Jun. 2.	Bryan, Tex.	May 22
Jun. 2.	Port Townsend, Wash.	May 22
Jun. 2.	Elyria, O.	May 29
Jun. 2.	Long Island City, N. Y.	May 29
Jun. 2.	Illinois	May 29
Jun. 2.	Washington	May 29
Jun. 2.	Lancaster, Wis.	May 29
Jun. 2.	Baltimore, Md.	May 29
Jun. 2.	Duluth, Minn.	May 29
Jun. 2.	Ann Arbor, Mich	May 29
Jun. 3.	Grinnell, Ia.	Apr. 17
Jun. 3.	Montclair, N. J. Adv. May 22.	May 22
Jun. 3.	Berlin, Ont.	May 29
Jun. 3.	Jersey City, N. J.	May 29
Jun. 3.	Dubuque, Ia.	May 29
Jun. 4.	Columbus, O.	May 15
Jun. 4.	Albany, N. Y. Adv. May 22, 29.	May 22
Jun. 4.	Steubenville, O.	May 22
Jun. 4.	Clarksburg, W. Va.	May 29
Jun. 4.	Greensburg, Pa.	May 29
Jun. 4.	Idaho	May 29
Jun. 4.	Knoxville, Tenn. Adv. May 29.	May 29
Jun. 4.	Holyoke, Mass. Adv. May 29.	May 29
Jun. 5.	Vanceburg, Ky.	May 29
Jun. 7.	Ellensburg, Wash.	May 8
Jun. 7.	Hazlehurst, Miss.	May 1
Jun. 7.	Arlington, O.	May 15
Jun. 7.	Washington.	May 22
Jun. 7.	Tavares, Fla.	May 22
Jun. 7.	Maysville, Ky. Adv. May 29.	May 29
Jun. 7.	Ashland, Ky.	May 29
Jun. 7.	Camden, Ala.	May 29
Jun. 7.	San José, Cal.	May 29
Jun. 7.	Hackensack, N. J.	May 29
Jun. 7.	Clarksdale, Miss.	May 29
Jun. 8.	Mt. Vernon, Wash.	May 15
Jun. 8.	Stevenson, Wash.	May 22
Jun. 8.	Noblesville, Ind.	May 22
Jun. 8.	Woonsocket, R. I. Adv. May 29.	May 29
Jun. 8.	Walla Walla, Wash.	May 29
Jun. 9.	Struthers, O.	May 8
Jun. 9.	St. James, Minn.	May 29
Jun. 9.	Seattle, Wash	May 29
Jun. 10.	Pittsburgh, Pa.	May 29
Jun. 10.	Sandpoint, Idaho	May 29
Jun. 11.	Cincinnati, O.	May 22
Jun. 12.	Racine, Wis.	May 29
Jun. 14.	Seattle, Wash.	May 22
Jun. 14.	Vancouver, Wash.	May 29
Jun. 14.	Sault Ste. Marie, Mich. Adv. May 29.	May 29
Jun. 15.	Philadelphia, Pa. Adv. May 29.	May 29
Jun. 15.	St. Cloud, Minn	May 29
Jun. 16.	Ft. Leavenworth, Kan.	May 29
Jun. 16.	Albany, N. Y. Adv. May 29.	May 29
Jun. 18.	Steubenville, O.	May 29
Jun. 18.	Glendale, O.	May 29
Jun. 18.	Cincinnati, O.	May 29
Jun. 18.	Bremen, Ind.	May 29
Jun. 19.	Painesville, O.	May 29
Jun. 21.	Baton Rouge, La.	May 22
Jun. 21.	Brainerd, Minn.	May 22
Jun. 26.	Columbus, O.	May 22

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Jun. 1.	Drainage Ditches, Bartow, Fla. Adv. May 1, 8.	May 1
Jun. 1.	Drainage, Eagle Lake, Ia.	May 22
Jun. 1.	Dam, River Glade, N. B.	May 29
Jun. 1.	Wharf, South Baymouth, Ont.	May 29
Jun. 1.	Levee, New Orleans, La.	May 29
Jun. 2.	Water Turbines, Etc., Wheeling, W. Va. Adv. May 8 to 29.	May 8
Jun. 2.	Sea and Retaining Walls, Rhode Island	May 29
Jun. 4.	Mitering Guard Gates, Louisville, Ky. Adv. May 8 to 29.	May 8
Jun. 4.	Boat Harbor, Ottawa, Ont.	May 29
Jun. 4.	Levee, Piqua, O.	May 29
Jun, 5.	Levee Work, Vicksburg, Miss.	May 29
Jun. 7.	Stone for Jetty, Portland, Ore.	May 22
Jun. 7.	Ditch, Webster City, Ia.	May 22
Jun. 7.	Shore Protection Wks., Stone Harbor, N. J. Adv. May 29.	May 29
Jun. 7.	Dredge, Etc., Kansas City, Kan. Adv. May 29.	May 29
Jun. 8.	Pier, Brooklyn, N. Y.	May 29
Jun. 9.	Dredging, Trenton, Tenn.	May 22
Jun. 9.	Ferry Landing, Seattle, Wash.	May 29
Jun. 10.	Wharf Sheds, Jacksonville, Fla.	May 29
Jun. 10.	Drainage, Cheney, Wash.	May 29
Jun. 11.	Ditch, Improv., Elbow Lake, Minn.	May 29
Jun. 11.	Drainage, North Yakima, Wash.	May 29
Jun. 12.	Rebuilding Wharves, etc., Newport, R. I. Adv. May 15 to 29.	May 15
Jun. 14.	Dam, Lock Haven, Pa. Adv. May 22, 29.	May 22
Jun. 14.	Ditch, Everett, Wash.	May 29
Jun. 15.	Excav. for Earth and Rock, Detroit, Mich. Adv. May 8, 15.	May 8
Jun. 15.	Dam, Montreal, Que.	May 15
Jun. 15.	Power House at Dam 29, Ashland, Ky. Adv. May 29.	May 29
Jun. 15.	Lock Gates, Valves, Etc., Vicksburg, Miss. Adv. May 29.	May 29
Jun. 16.	Canal Excav., Payson City, Utah.	May 22
Jun. 16.	Dredging, Newport, R. I. Adv. May 15 to 29.	May 15
Jun. 17.	Earthwork for Levee, St. Louis, Mo. Adv. May 22, 29.	May 22
Jun. 18.	Extension to Pier, Cap Chat, Que.	May 29
Jun. 18.	Retaining Wall, Cincinnati, O.	May 29
Jun. 19.	Superstructure of Pier, Erie, Pa. Adv. May 22, 29.	May 22
Jun. 21.	Dredging, Boston, Mass. Adv. May 22, 29.	May 22
Jun. 21.	Dredging, Philadelphia, Pa. Adv. May 22, 29.	May 22
Jun. 21.	Repair to Bank Protection, Augusta, Ga. Adv. May 29.	May 29
Jun. 25.	Wharf, Southport, N. C.	May 29
Jun. 25.	Rip Rap and Repairing Sea-Wall, New York, N. Y. Adv. May 29.	May 29
Jun. 26.	Levee Wk., Caldwell, Tex.	May 29
Jun. 30.	Steel for Lock Construction, Sault Ste. Marie, Mich. Adv. May 29.	May 29

PUBLIC BUILDINGS AND SCHOOLS.

Jun. 1.	Harrisburg, Pa.	Mar. 13
Jun. 1.	Urbana, Ill.	May 8
Jun. 1.	Cleveland, O.	May 8
Jun. 1.	Huntsville, Tex.	May 15
Jun. 1.	Syracuse, N. Y.	May 15
Jun. 1.	Danvers, Mass.	May 15
Jun. 1.	Flora, Ind.	May 15
Jun. 1.	St. Paul, Minn.	May 22
Jun. 1.	Youngwood, Pa.	May 22
Jun. 1.	Albert Lea, Minn.	May 22
Jun. 1.	Carlton, Minn.	May 22
Jun. 1.	Rochester, N. Y.	May 22
Jun. 1.	Whitby, Ont.	May 22
Jun. 1.	Okmulgee, Okla.	May 29
Jun. 1.	Champaign, Ill.	May 29
Jun. 1.	Leonia, N. J.	May 29
Jun. 1.	Columbus, O.	May 29
Jun. 1.	California, Pa.	May 29
Jun. 1.	Carthage, Tenn.	May 29
Jun. 2.	Longview, Tex.	May 1
Jun. 2.	Kearny, N. J.	May 22
Jun. 2.	Lancaster, Ky.	May 29
Jun. 3.	Chillicothe, Mo.	Apr. 24
Jun. 3.	Corning, O.	May 8
Jun. 3.	Chillicothe, O.	May 15
Jun. 3.	Marion, O.	May 22
Jun. 3.	Rock Island, Ill.	May 22
Jun. 3.	Oregon, Mo.	May 29
Jun. 3.	West Springfield, Mo.	May 29
Jun. 3.	Anoka, Minn.	May 29
Jun. 3.	Pittsburgh, Pa	May 29
Jun. 3.	Los Angeles, Cal.	May 29
Jun. 4.	Louisville, Ky.	May 22
Jun. 4.	Ft. Sam Houston, Tex. Adv. May 22, 29.	May 22
Jun. 4.	Onward, Ind.	May 22
Jun. 4.	Louisville, Ky.	May 29
Jun. 4.	Kansas City, Mo.	May 29
Jun. 4.	Alexandria, Minn.	May 29
Jun. 4.	Bayonne, N J.	May 29
Jun. 4.	Ellendale, N. D.	May 29
Jun. 4.	Plover, Ia.	May 29
Jun. 5.	Brookville, O.	May 22
Jun. 5.	Lincoln, Neb.	May 29
Jun. 5.	Dorrisville, Ill.	May 29
Jun. 5.	Chicago, Ill.	May 29
Jun. 5.	Hamilton, O.	May 29
Jun. 5.	Los Angeles, Cal.	May 29
Jun. 7.	Oklahoma City, Okla.	May 8
Jun. 7.	Manilla, Ia.	May 22
Jun. 7.	Vienna, O.	May 22
Jun. 7.	Mims, Fla.	May 29
Jun. 7.	Radcliffe, Ia.	May 29
Jun. 7.	Sumner, Ia.	May 29
Jun. 7.	Hyde Park, Cal.	May 29
Jun. 8.	Reading, Pa.	May 8
Jun. 8.	Louisville, Ky.	May 15
Jun. 8.	Parry Sound, Ont.	May 15
Jun. 8.	Tomah, Wis.	May 22
Jun. 8.	Mahoningtown, Pa.	May 22
Jun. 8.	Gardner, Kan.	May 29
Jun. 8.	Newark, N. J.	May 29
Jun. 8.	Detroit, Mich.	May 29
Jun. 9.	Detroit, Mich. Adv. May 15.	May 15
Jun. 9.	Hamilton, O.	May 22
Jun. 10.	Ft. Stevens, Ore.	May 29
Jun. 10.	St. Paul, Minn.	May 29
Jun. 10.	Los Angeles, Cal.	May 29
Jun. 11.	Minerva, O.	May 29
Jun. 11.	Ft. Worden, Wash.	May 29
Jun. 14.	Marlin, Tex.	May 8
Jun. 14.	Tampa, Fla. Adv. May 8, 15.	May 8
Jun. 14.	Toledo, O.	May 22
Jun. 14.	Albion, Ia.	May 29
Jun. 14.	Urbana, O.	May 29
Jun. 14.	Wheeling, W. Va.	May 29
Jun. 14.	Rochester, N Y.	May 29
Jun. 14.	Warwick, N. D.	May 29
Jun. 14.	Grand Rapids, Mich. Adv. May 29.	May 29
Jun. 14.	Brooklyn, N. Y.	May 29
Jun. 14.	Rankin, Pa.	May 29
Jun. 15.	Primghar, Ia.	May 15
Jun. 15.	Ft. Sill, Okla. Adv. May 22, 29.	May 22
Jun. 15.	Columbus, O.	May 29
Jun. 16.	Connersville, Ind.	May 22
Jun. 18.	Springfield, O.	May 29
Jun. 19.	Radnor, O.	May 29
Jun. 21.	Cuero, Tex.	May 15
Jun. 21.	Ft. Terry, N. Y. Adv. May 29.	May 29
Jun. 23.	Allentown, Pa.	May 22
Jun. 24.	Mt. Vernon, N. Y.	May 29
Jun. 28.	Canton, O.	May 29
July 1.	Boston, Mass.	May 22
Jul. 2.	Charlotte, N. C.	May 29
July 13.	Washington, D. C.	May 22
———	Greenville, S. C. Adv. May 1.	May 1

PRIVATE BUILDINGS.

Jun. 1.	Omaha, Neb.	May 29
Jun. 5.	Ames, Ia.	May 29
Jun. 5.	Wabash, Ind.	May 29
Jun. 9.	Brantford, Ont.	May 29
Jun. 10.	Chicago, Ill.	May 29
Jun. 17.	Spencer, Ia.	May 29

NEW INDUSTRIAL PLANTS.

Jun. 2.	Beacon, N. Y. Adv. May 22, 29.	May 22
Jun. 7.	Montreal, Que.	May 22

MISCELLANEOUS.

Jun. 1.	Elevators, Seattle, Wash.	May 15
Jun. 1.	Street Cleaning, Washington, D. C.	May 29
Jun. 2.	Car Tracks on Viaduct, Cincinnati, O.	May 29
Jun. 3.	Lighting Fixtures in Pub. Bldg., New York, N. Y. Adv. May 8, 15.	May 8
Jun. 3.	Equipment for School, Montclair, N. J. Adv. May 22.	May 22
Jun. 5.	Reinforcing Bars, Panama.	May 22
Jun. 7.	Cement, Seattle, Wash.	May 22
Jun. 7.	Power House Improv., Hull, Que. Adv. May 22.	May 22
Jun. 7.	Sect. 2, N. Y. Connecting Ry., Queens Boro., L. I., N. Y. Adv. May 22, 29.	May 22
Jun. 7.	Cement, San Jose, Cal.	May 29
Jun. 8.	Coal and Ash Handling Apparatus, Anacostia, D. C.	May 22
Jun. 8.	Lumber, San Francisco, Cal.	May 29
Jun. 9.	Refrigerating and Electric Light Plants, Ft. Huachuca, Ariz. Adv. May 15 to 29.	May 15
Jun. 9.	Boilers and Traveling Cranes, New Orleans, La. (2 Prop.) Adv. May 29.	May 29
Jun. 10.	R.R. Wk., Warren, Ariz.	May 29
Jun. 10.	Cement, Seattle, Wash.	May 29
Jun. 10.	Cement, New York, N. Y.	May 29
Jun. 11.	Elevator, Augusta, Ga.	May 22
Jun. 11.	Supplies, Panama	May 29
Jun. 11.	El. Ry. Material, New York, N. Y.	May 29
Jun. 12.	Locomotive Crane, Boston, Mass.	May 22
Jun. 12.	Cranes, Norfolk, Va.	May 15
Jun. 15.	El. Ry. Sect. No. 1, Brooklyn, N. Y. Adv. May 29.	May 29
Jul. 1.	Crane, Halifax, N. S.	May 22

Hydraulic Turbines for Great Falls Power Company

Main Units, Operating Under a Head of 150 Feet, Will Develop 15,000 Horsepower Each

There is now nearing completion on the Missouri River, about 12 miles east of the city of Great Falls, Mont., a hydroelectric station of 90,000-hp initial capacity, controlled by the Great Falls Power Company, and designed to furnish current for the electrification of the Chicago, Milwaukee & St. Paul Railway. The first installation will consist of six vertical-shaft 15,000-hp units and two 850-hp exciter units. The net working head will be 150 ft., the main units operating at 200 r.p.m. and the exciters at 450 r.p.m.

Main-Unit Turbines

The runner of each main unit, consisting of a bronze bucket rim and a cast-steel hub, is keyed to a vertical shaft and operates in a cast-iron spiral casing, imbedded in the concrete substructure of the power house. Both on the upper and lower running joints the runner is fitted with removable steel rings, which may be replaced as the service demands. The original clearance may thus be maintained at a very low expense and little trouble.

The inlet of the spiral casing is 8 ft. in diameter; it is split on the horizontal center line, and each half further divided into three sections. This was necessary to meet the shipping facilities available.

The direction of the water as it leaves the casing is controlled by thirteen stationary cast-steel guide vanes forming the speed ring. From the speed ring it passes into a set of twenty-six movable, forged-steel gates. The upper and lower plates between which the gates swing provide bronze-bushed bearings for each gate stem. The upper plate also carries the main steady bearing, as well as the shifting ring which controls the opening and closing of the gates. All leakage along gate stems or past the upper running joint of the runner is drained off into the draft tube through the hollow guide vanes of the speed ring.

The turbine shaft of hammered steel, 17 in. in diameter, is carried in a lignum-vitae steady bearing, located just above the runner hub. Through this bearing the shaft is fitted with a bronze sleeve, the water for lubrication being supplied at the top and drained off at the bottom through the vanes of the speed ring. The shaft extends for a distance of 12 ft. 3 in. above the center line of the spiral casing and terminates in a forged flange for connection to a corresponding flange on the generator shaft.

The water, after passing through the runner, discharges into a short length of cast-iron draft tube, concentric with an outer pit liner imbedded in the concrete. This pit liner is provided with openings which may be reached through a tunnel and which give access to the manholes in the draft-tube proper. The cast-iron draft tube terminates in a cast-iron curb ring designed with an air-tight rubber packed joint. The lower section of the draft tube is formed in the concrete.

For convenience in erecting the unit and to afford some means with which to maintain a permanent tie between generator and turbine, a heavily ribbed cast-iron pit liner extends from the top of the spiral casing to the generator base.

Owing to the large WR^2 of the generator rotor, it was necessary to provide some means for quickly bringing the rotating parts to rest after the turbine gates were closed. For this purpose eight brakes are located on the upper flange of the pit liner, so arranged that the hardwood brake shoes are thrown against the lower side of the rotor. These brakes are controlled by air, each unit having its individual throttle and pressure gages, mounted on a suitable standard on the generator floor.

The total weight of all rotating parts plus the down thrust of the runner when in operation is estimated at 316,000 lb. This load is carried on a Kingsbury-type bearing located on top of the generator.

The design of the exciter units is very similar to that of the main wheels.

Governor System

The arrangement of pumps, supply main, pressure tanks, actuators and sump tank here employed, together with the oil distribution it provides, is described as the "central open system." Each unit is governed independently of the rest, and is in no way affected by the demands of the others. All, however, feed from the same supply main, connected to a set of three motor-driven pumps of the vertical, single-action triplex type. The capacity of these pumps is such that any two will carry the whole system. The third pump is reserved for emergency, the interconnecting piping and valves being so arranged as to allow any two of the pumps to operate together. Pumps, motors, air compressor, sump tank and piping are located in the chamber under the generator floor.

The accompanying photographs give some idea of the size and appearance of the main-unit turbine equipment. Four main units and the two exciter units have been completed and shipped to date—the remaining two are now in process of construction. The main and exciter turbines were designed and built by the S. Morgan Smith Company, of York, Pa. The governor equipment, including actuators, pressure tanks and pumps, will be furnished by the Woodward Governor Company, of Rockford, Ill.

Charles T. Main, of Boston, is the consulting engineer, and Henry A. Herrick, of Great Falls, Mont., resident engineer.

THESE 15,000-HORSEPOWER TURBINES ARE BEING INSTALLED FOR THE GREAT FALLS POWER COMPANY

Fine Screen for Brooklyn Sewage

Brooklyn's new Twenty-sixth Ward sewage treatment plant, now under construction, will be equipped with a revolving fine screen. The capacity of the works will be 12,000,000 gal. daily and the specifications allowed the contractor the option of bidding on three types of plant (a) Riensch-Wurl screens, with direct removal of the screenings; (b) Imhoff tanks with drying beds for sludge; (c) sedimentation tanks with separate sludge-digestion tanks and sludge-drying beds. The contract was awarded to the North Eastern Construction Company, which elected to install Riensch-Wurl fine screens to fulfil the requirements of the specifications. It is expected that the works will be in operation this summer.

Business Notes

George C. Wilson, of the Independent Pneumatic Tool Company, Chicago, Ill., has been appointed manager of that company's Atlanta, Ga., branch, succeeding F. H. Charbono, who has been transferred to Boston.

S. F. Miller, president of the Pacific Flush-Tank Company, manufacturers of the Miller automatic siphon and other devices for sewage handling, with general offices located at 4241 E. Ravenswood Ave., Chicago, states that the cards of the company announcing the change of address of its Chicago office from the Temple Building to the above have been misunderstood by many as indicating the removal of its New York City offices from the Singer Building. There has been no change in the address of these offices and they are still maintained under the personal charge of Mr. Miller.

Merton A. Pocock has been appointed district sales manager of the Terry Steam Turbine Company, builders of steam turbines for all purposes, with main office and works located at Hartford, Conn., for the territory included in the States of Minnesota, North Dakota and South Dakota. His office is in the Endicott Building, St. Paul. This arrangement supersedes the company's previous selling agreement with Robinson, Cary & Sands Company, of St. Paul. The Hawkins-Hamilton Company, People's National Bank Building, Lynchburg, Va., has been appointed to represent the company in the State of Virginia.

New Construction Activities

Steadiness of securities of all sorts on June 1 in the face of Germany's reply to the note of this Government concerning the recent destruction of American life and property on the high seas, and also in the face of an announced change in our policy toward Mexico, which may lead to intervention in that country, indicates that forces of unusual strength are making for general business improvement. While all eventualities may not have been discounted, certainly the probabilities would appear to have been foreseen and already reckoned with. Indeed it is entirely possible that business conditions would continue to improve in the face of actual hostilities. Certainly this would be true of the steel industry and other export manufactures.

The $25,000,000 loan of the Missouri Pacific Railway which matured June 1, and about the financing of which there has been speculation, if not anxiety, in railroad circles, seems likely to be met for the present by a one-year renewal of the notes. More than 85 per cent of these were returned to the railroad for renewal on the day of maturity, and none of the remaining note holders seem disposed to sue. Plans for financial readjustment of this road would, if successful, take care of these renewed notes within a year.

Railroad equipment orders in May included 165,000 tons of rails, 21,054 cars and 165 locomotives. The first figure is very satisfactory. The second is the largest since February, 1913. The last is the largest since March, 1914. Both of the latter were due in large part to the Pennsylvania orders. Direct export orders for steel products for last month approached 250,000 tons. Preliminary estimates of orders for fabricated steel indicate that 86,000 tons were placed last month. The business from domestic manufacturers for home consumption is the one unsatisfactory spot in the market, and competition for what little of this business came up brought out price concessions on shapes, black sheets and wire products. Galvanized products have advanced, and other prices are firm. Export steel now commands a premium over that sold in this country.

The railroads of the country, except in the southern district, show an increase in revenue for the month of March, according to a statement just issued by the Bureau of Railway Economics, amounting for the whole country to 1.2 per cent over March, 1914, and to 3.6 per cent over March, 1913. The gain is wholly due to savings effected in operating expenses, as gross revenues have declined since 1912.

Out of fifteen leading cities in the country, 11.5 per cent of the wage earners were unemployed last month, according to the department of labor. Of these workers 16.6 per cent were employed only part time. No previous reports are available for comparison, as this is the first survey of the kind that has been made. The vote of the Chicago mill workers to accept the increase offered by the lumber mills is said to make toward a settlement of the labor troubles that have tied up work in that city for some time.

Buildings

While no large building contracts were awarded last week, prospective building work appears to be on the increase. Among the smaller contracts let was one for a $118,000 high school at Redondo Beach, Cal., and another for a $130,000 school building at Paterson, N. J. Bids are desired on three college buildings at Charleston by the Board of Control of West Virginia. Bids are desired on a $100,000 hospital at Cleveland, and on a $150,000 building for the University of Washington at Seattle. Bids are also desired for a nine-story concrete warehouse at Kansas City. Plans for an $800,000 public school have been approved at Cincinnati. Plans have been completed for a $500,000 mausoleum at St. Louis. Plans are being prepared for a $500,000 building at Rochester, N. Y. Columbia, S. C., has sold $250,000 school bonds, and plans for buildings are being prepared. A permit for a $500,000 bank building has been issued at Springfield, Mass. Plans have been prepared for a $500,000 elevator at Milwaukee. It is reported that a four-story plant for manufacturing typewriters to be built at Lawrence, Mass., will cost, with machinery, $1,300,000. The dock board of New Orleans has sold bonds totaling $1,250,000 which will be used in erecting elevator facilities for the port.

Bridges and Roads

Bridge work is still very light, the only large item noted last week being the $1,000,000 bridge over the Missouri River reported from Kansas City, the contract for the substructure of which has already been awarded. Contracts for small bridges were awarded at Concord, N. H., and North Platte, Neb. The contract for repairing the Connaught Bridge recently destroyed by fire at Vancouver, B. C., which will amount to $90,000, will soon be awarded. Bids are desired on highway bridge work at Lumpkin, Ga., and by the Department of the Interior, at Washington.

Highway work continues active, a large number of contracts having been awarded last week. Contracts totaling $75,000 were awarded by the State of Maine. The low bids on the State-aid highway repair contracts opened June 1 at Albany, N. Y., total $221,000. The low bids on highway work opened May 24 in California total $165,000. Contracts totaling $72,000 were also awarded by the State of Washington. The commissioners of public works at Buffalo awarded a $99,000 paving contract, and a $123,000 contract has been awarded by the city council of St. Paul. The contract for resurfacing a speedway, also awarded at St. Paul, amounts to $181,000. One paving contract was awarded at Spokane for $165,000, while low bid on another was $111,000. Bids are desired on several large paving contracts at Albany, N. Y. The State of Indiana will receive bids June 7 and 8 on a number of highway contracts. Bids will be received at De Land, Fla., for 36 miles of road construction. Bids are also desired at Arcadia, Fla., for clearing the right-of-way for 110 miles of road. Paving which will cost $111,000 is contemplated at Ogden, Utah. From the Pacific Coast it is reported that Los Angeles will pave from 50 to 60 miles of street this year, and that Hanford, Cal., is offering road bonds in the sum of $672,000 for sale on June 5.

Waterworks and Sewers

A pipe-laying contract totaling nearly $400,000 was awarded May 25 at Philadelphia. The lowest bid on furnishing 2265 tons of cast-iron pipe at Chicago was $23.85 per ton. It is reported that $80,000 has been appropriated for a reservoir at Worcester, Mass. Bathurst, N. B., will offer a $150,000 sewer and waterworks bond issue for sale on June 10. A large number of permits for sewer and waterworks construction in towns in Pennsylvania were issued last month. A $100,000 sewer contract has been awarded at Baltimore. Two contracts for sewer construction in New York City, one for $32,000 in Long Island City and another for $57,000 in Brooklyn, were awarded last week. The lowest bid for constructing a brick sewer at Racine, Wis., was $80,000. Bids are desired on further sewer construction in Washington, D. C. Bids are desired in Chicago for the construction of large-diameter sewers which will cost $683,000. Bids are desired for constructing 4 miles of sewers at Greenwich, Conn., and Burlington, Ont., has advertised for bids on constructing a sewer system, including a disposal plant and a pumping station.

Miscellaneous

The contract for a $450,000 concrete wharf building at Galveston was secured by the Stone & Webster Engineering Corporation. Contract for the section of the Brooklyn elevated lines noted last week was awarded to the low bidder, the Oscar Daniels Company. The low bid on flood-protection work at Rochester, N. Y., was $350,000. A contract for a $400,000 jetty has been awarded at New Westminster, B. C. Bids are desired for constructing a pier in Brooklyn, a garbage reduction plant at Detroit, and a highway tunnel at Pittsburgh. Plans have been forwarded to the War Department for deepening the Delaware River at Philadelphia, involving an expenditure of $500,000. Promotion schemes are becoming more plentiful. Among those noted is a $375,000 irrigation project at Hermiston, Ore. A railroad company has been chartered to build 23 miles of line near Barbourville, Ky. The Florida Legislature has passed an enabling act permitting the issue of $300,000 bonds for a sea wall at Key West. Grade-crossing elimination bonds totaling $100,000 have been sold at Indianapolis. The Chesapeake & Ohio Railway is reported to be about to undertake considerable construction work, including third-track work near Portsmouth, Ohio, and 60 miles of new line between Waverly and Columbus to connect with the Norfolk & Western Railway.

WATERWORKS

PROPOSED WORK.

Worcester, Mass.—Council reported to have appropriated $80,000 for work on Pine Hill reservoir.

Lindenhurst, N. Y.—There is a movement on foot here to construct waterworks, but nothing definite has yet been done. Fred Sheide, Town Supervisor.

Pennsylvania.—Following are among the permits issued from Apr. 15 to May 15 by State Dept. of Health at Harrisburg (Dr. Saml. G. Dixon, Comr.):

Allentown — Temporary sterilization equipment.

Pottsville—To Schuylkill County Almshouse, new pumping equipment.

Mt. Gretna — To Adjutant General's Dept., Mt. Gretna Encampment Grounds, drilled well and reservoir.

Gratz—To Gratz Water Co., preliminary plans for pumping station, reservoir and pipe lines.

Hegins—To Hegins Water Co., preliminary plans for reinforced concrete reservoir.

Portage—To Portage Water Co., enlargement of storage reservoir.

Bethlehem — Municipal water works. Drilled well.

Madera—To Madera Water Co., extensions to distributing system.

Shamokin—To Bear Gap Water Co., storage reservoir.

Reading—To Reading Suburban Water Co., slow sand filters.

Houtzdale—To Ramey Water Co., of Houtzdale, extensions to distributing system.

Canton—To Citizens Water Co., of Canton, preliminary plans for filters and remodeling distributing system.

Norristown—To Norristown Insurance & Water Co., rapid sand filters.

Ridgway—Municipal system, rapid sand filters.

Scottdale—To Citizens Water Co., of Scottdale, gravity supply mains.

New Wilmington—To New Wilmington Water Supply Co., of New Wilmington, alterations to storage reservoir.

Philadelphia, Pa.—Following are reported to be four lowest bids opened May 25, for furnishing and laying c. i. water pipe under contract No. 260, approximately 17,000 ft. 48 in., 3,300 ft. 30 in. and 21,000 24 in.: Edwin H. Vare, Philadelphia, $399,963; Snare & Triest, New York, $406,855; Degnon Contr. Co., New York, $413,127; Chas. P. Bowers, Philadelphia, $424,380.

Contracting News

Of Special Interest to Engineers, Contractors, Builders and Manufacturers of Engineering and Building Supplies

Myersville, Md.—A water supply system will probably be installed in Meyersville; to be by gravity from springs east of Pine Knob.

Salisbury, Md.—The municipal authorities considering question of improving the water, sewerage and sewage disposal systems.

Washington, D. C.—Until June 14 by Comrs. D. C. (Oliver P. Newman, Chmn.) for furnishing and delivering 7000 ⅝-in. water meters.

Keyser, W. Va.—An election will probably soon be held to vote on issuing bonds for water works.

Warrenton, N. C.—Citizens voted to issue $50,000 bonds for installing water works and a sewer system.

Wilmington, N. C.—It is proposed to install water mains in the 6th Ward, to cost $29,000. Not yet ready to let contract. F. F. Pillet, City Engr.

Lexington, Ky.—Lexington Hydraulic & Mfg. Co. will lay water mains from its pumping station to Mentelle Park. The new line will be about 10,000 ft. in length. and cost $25,000.

Farmersville, O.—Citizens voted $16,000 bonds for constructing water works. A. F. Gilbert, City Clk.

Grafton, O.—A franchise for constructing water works and natural gas system has been granted to P. J. Fitzgerald, of Elyria. No contracts yet let.

Shadyside, O.—Bonds in the sum of $45,000 reported to be used for water works.

South Charleston, O.—Citizens voted $30,000 for construction of water works.

Wellington, O.—Citizens voted a bond issue to install a filtration plant for water supply.

Bloomington, Ind.—A proposition of the American Cast Iron Co., Chicago, to complete municipal water works, at a cost of $90,000 being considered by City Council. Company's proposition is to furnish pipe line, lay same and furnish boilers, engines, pumps and power house.

Indianapolis, Ind.—It is stated that the Indianapolis Water Co. will lay approximately 8000 ft. of mains within the next 10 days.

Milton, Ind.—The Town Bd. reported to have accepted proposal of Light, Heat & Power Co., of Connersville, to construct and operate an electric light plant and water works. Company proposes to erect a pumping station at river.

Springfield, Ill.—State House May 25 passed Governor Dunne's deep waterway bill. The measures provide for deepening a portion of Illinois River and to make a navigable waterway from Great Lakes to Gulf of Mexico.

Terrell, Ia.—Citizens reported to have voted to issue $8,500 bonds for constructing water works.

Anamoosa, N. D.—Plans being prepared by Engineer Atkinson, of Bismark, for construction of city water works, to cost $10,000. E. C. Waydiman, City Clk.

Canova, S. D.—Bonds in the sum of $9,500 will be sold June 18 to be used for construction of water works. Engineer not yet engaged. H. H. Schulte, Town Clk.

Lees Summit, Mo.—The Water Works Co. contemplates building connecting pipe line to city limits; cost $18,000. City will bond for $26,000 for distribution system. Missouri River water to be used. Engineers, Henrici, Kent & Lowry, of Kansas City.

Benton, Ark.—The installation of a street lighting in connection with proposed water works is reported under consideration. Engineers, J. B. McCrary Co., Atlanta, Ga.

Antlers, Okla.—Citizens voted to issue bonds for extension of water works, constructing sewer system and installing electric light plant.

Aberdeen, Wash.—Council considering plans of J. M. Phillips, Aberdeen, to issue $100,000 bonds to secure a permanent water supply and power plant.

North Powder, Ore.—A petition is being circulated calling for a new election to vote $20,000 bonds for constructing municipal water works.

Pendleton, Ore.—Bonds in the sum of $40,000 reported sold, to be used for water works construction.

San Diego, Cal.—M. M. O'Shaughnessy and J. B. Lippincott, employed by city to make report on Volcan water system, recommend that Warner dam be developed for hydroelectric power; also construction of flume from Warner's dam to Pamo, conduit from Pamo to San Clemente, and pipe line from San Clemente to University Heights reservoir.

Reno, Nev.—City Clerk writes it is not proposed to construct water works at present. A franchise was petitioned for, but not accepted.

Twin Falls, Idaho—The present Mayor and Council favor construction of new water works within 18 months. Nothing definite yet done.

Bathurst, N. B.—Reported bonds in the sum of $150,000 will be sold June 10 by John G. Stout, City Clk., to be used for construction of water and sewer systems.

BIDS DESIRED.

Wilmington, Del.—Until June 14 by Bd. Water Comrs. (Edgar M. Hoopes, Jr., Ch. Engr.) for a motor-driven centrifugal pump.

Washington, D. C.—Until June 15 at Bureau Supplies and Accounts, Navy Dept., Washington, D. C., for furnishing and delivering at the Navy Yards the following: Annapolis, Md.—Sch. 8378, a centrifugal pump; Washington, D. C.—Sch. 8360, a single acting plunger pump. Norfolk, Va.—Sch. 8396, miscellaneous composition pipe fittings; Sch. 8382, c.-i. water pipe and c.-i. fittings.

Shepherdstown, W. Va.—Reported desired until June 10 by A. G. Alder, Engr., Shepherdstown Light & Power Co., for constructing a water system. Probable cost $17,000.

Chagrin Falls, O.—Reported desired until June 7 by Bd. Trus., Pub. Affairs (L. G. Bradley, Clk.), for a horizontal, duplex, direct-acting, non-condensing pumping engine, and a return tubular, brick set boiler, 54 in. in diam. and 54 ft. long.

Cleveland, O.—Until June 9 by Commissioner of Purchase and Supplies for repair of 3 vertical triple-expansion pumping engines for Division Ave. Pumping Station, Dept. of Public Utilities; also same time and place separate bids for stud bolts and nuts for c.-i. flanged pipe for Division Ave. Pumping Station.

Columbus, O.—Until July 1 by John I. Miller, Supt. Pub. Wks., Columbus, for constructing a dam waste weir and flood regulation gates at East Reservoir, Portage Lakes, near Akron, advertised in Engineering Record.

Eastview (P. O. Warrensville), O.—Reported desired until June 14 by Chas. E. Burger, Clk., for laying water mains in Lee Rd., Sand, Helen and E. 149th Sts. The Pease Engr. Co., Engrs., Marshall Bldg., Cleveland.

Chicago, Ill.—Until June 9 by Bd. Local Improv. (Edw. J. Glackin, Secy.) for constructing water supply pipe in portions of S. Winchester, S. 40th, Greenview, Houston Aves., S. Mozart and several other streets.

Ottawa, Ill.—Reported desired until June 7 by W. W. Curtis, City Clk., for water mains and hydrants on various streets.

Stacyville, Ia.—Until June 7 by Town Council for water mains, hydrants, valves and machinery, advertised in Engineering Record. Jos. N. Wolf, Town Clk.

Campbell, Minn.—Until June 15 at office of Herman Reylte, Village Recorder, for water works system. The work will consist of pressure water works system, comprising 40,000-gal. concrete reservoir, approximately 1700 ft. 6-in. B. & S. water main, valves, hydrants, specials, etc. Compressed air system, consisting of a 9 ft. x 30 ft. steel pressure tank, a 70 cu. ft. per min. air compressor, a 300-gal. triplex pump, including piping, fittings, tanks, motors and accessories. Alternate bids will be received on smaller size of pump and on centrifugal pump arrangement, brick pump house, outside dimensions, approximately 27 x 50 ft., one story. Bids desired as a whole or separately on the above work. J. F. Druar, Engr., Commercial Bldg., St. Paul.

Marshall, Minn.—Until June 8 by J. Johnson, City Clk., for erecting a steel tank, 10,000 gals. capacity, and tower, including all labor and material. W. C. Buck, Engr., Minneapolis.

Butler, Mo.—Until June 22 by J. F. Smith, City Clk., for water works improvements, including filter plant, pumps, motors, etc., advertised in Engineering Record. Harper & Stiles, Engrs., 914 Grand Ave. Temple, Kansas City.

Colfax, Wash.—Citizens reported to have voted to replace 5 miles of wood pipe line from Glenwood to Colfax with metal pipe, at an estimated cost of $60,000, and City Council will receive for 3200 ft. of 12-in. metal pipe.

Hespeler, Ont.—For excavation and pipe laying, concrete reservoir, pumping machinery and steel water tank for Town of Hespeler. Address Bowman & Connors, Engrs., Berlin.

Stratford, Ont.—Until June 25 by F. A. Gaby, Ch. Engr., Hydro-Electric Power Comn. of Ontario, Continental Life Bldg., Toronto, for a 500,000 Imperial gal. elevated water tower, for city of Stratford, advertised in Engineering Record.

PRICES AND LETTINGS.

★Indicates award of contract.

★Atlantic Highlands, N. J.—Contract for laying 1½ miles 4 to 8-in. c. i. water mains has been awarded to the Robt. W. Smith Cor., 30 Church St., New York, at $5,978. J. J. T. Franklin, Boro. Clk.

★Newark, N. J.—Contract awarded to Marks, Lissberger & Co., Inc., of Long Island City, for annual supply of lead pipe and pig lead; cost about $15,000 per yr.

★Philadelphia, Pa.—Following are bids opened by Dept. Pub. Wks. May 25 for Contract 260, furnish and lay c.-i. water pipe at South Philadelphia: (a) Edwin H. Vare, 712 Lincoln Bldg., $399,964 (awarded contract); (b) Snare & Triest Co., Pier 40 So. Wharves, $406,855; (c) Degnon Contr. Co., 30 E. 42d St., New York, $413,127; (d) Chas. P. Bower, Wayne & Roberts Aves., $424,381; Keystone State Constr. Co., 704-709 Pennsylvania Bldg., $438,645; Beaver Eng. & Contr. Co., 51 Chambers St., New York, $443,916; American Paving & Constr. Co., 211 S. 9th St., $450,531; Cunningham Paving & Constr. Co., 1345 Arch St., $478,955; Peoples Bros., Inc., 237 Commercial Trust Bldg., $577,250; M. & J. B. McHugh, 714 Commercial Trust Bldg., $654,594.

Unit prices of (a), (b), (c) and (d):

	*(a)	(b)	(c)	(d)
55,000 cu. yds. earth excav., not more than 10 ft. deep	$0.85	$1.10	$1.25	$1.17
1,000 cu. yds. earth excav., more than 10 ft. deep	1.95	1.50	1.25	2.00
1,500 cu. yds. rock excav., not more than 10 ft. deep	1.33	2.20	1.25	2.50
500 cu. yds. rock excav., more than 10 ft. deep	1.95	3.00	1.25	3.50
7,200 tons 48-36-30-in. c.-i. hub and spigot pipe	28.00	28.00	34.00	28.75
1,700 tons 24-in. and smaller c.-i. hub and spigot pipe	28.00	29.00	34.00	30.86
200 tons 48-36-30-in. c.-i. specials	82.40	70.00	80.00	79.50
50 tons 24-in. and smaller c.-i. specials	88.00	72.00	80.00	84.35
35,000 lbs. grey iron castings	.03¼	.03	.03½	.02½
10,000 lbs. wrought iron and steel fixtures	.10	.05	.06	.06
5,000 lbs. structural steel	.04	.03	.05	.05
1,500 cu. yds. concrete masonry	6.50	7.50	.01	6.00
2,000 cu. yds. brick masonry	11.50	10.60	.01	6.00
27,000 sq. yds. granite block paving	.40	.30	.01	.35
6,000 sq. yds. asphalt paving	1.40	1.10	.01	1.40
2,000 sq. yds. vitr. brick paving	.75	1.50	.01	1.30
1,200 sq. yds. wood block paving	1.60	3.30	.01	2.25
1,000 lin. ft. reset. curb	.20	.20	.09	.12
1,000 sq. ft. reset. flag stones	.06½	.10	.05	.08
100 sq. yds. granolithic sidewalk paving	1.60	1.50	1.25	1.10
100 sq. yds. brick sidewalk paving	.65	.60	1.25	1.00
10,000 lin. ft. terra cotta pipe sewers, 15 in. and under	.96	.45	.10	.50
3,000 ft. b. m. timber	.04	.06	.05	.05
2,000 lbs. lead pipe	.17	.15	.20	.10

★Paris, Ill.—Following are unit prices of 4 lowest bids opened May 18 by City Council for constructing 4 earth dams, a diversion channel, a wet well and an intake and 2 sewers, from plans of Fleming, Babbitt & Enger, of Urbana: (a) Hickey Bros., St. Louis, Mo., $49,412 (awarded contract); (b) A. J. Yawger & Co., Indianapolis, Ind., $50,281; (c) Harrington Bros., St. Louis, Mo., $50,698; (d) Alan J. Parish, Paris, $56,135.

	*(a)	(b)	(c)	(d)
Earth Dam with Concrete Spillway:				
4,100 cu. yds. earth excav. for cut-off wall and spillway	$0.30	$0.30	$0.30	$0.55
800 cu. yds. earth excav. on dam site	.30	.30	.21	.55
150 cu. yds. rock excav	1.00	.90	1.50	2.00
5 cu. yds. grouting	12.60	10.00	12.00	7.00
48,400 cu. yds. earth fill	.23	.25	.21	.23½
1,880 cu. yds. concrete in spillway (1-2-4)	6.35	6.00	7.25	7.10
540 cu. yds. concrete in cut-off wall (1-2-4)	6.50	5.00	6.40	7.10
50 ft. 36-in. vitr. pipe, in place	3.00	2.00	3.00	2.00
90 squares seeding banks (price per 100 sq. yds.)	2.00	.60	.50	.25
36-in. sluice gate (lump sum)	500.00	240.00	325.00	375.00
Clearing and grubbing on dam site (lump sum)	350.00	100.00	100.00	100.00
Earth Cut-off Dam:				
100 sq. yds. earth excav	.30	.30	.25	.55
6,400 sq. yds. earth fill	.25	.22½	.25	.25
20 squares seeding banks (price per 100 sq. yds.)	2.00	.60	.50	.25
Diversion Channel:				
50,000 cu. yds. earth excav	.18	.23½	.22	.25¾
3,200 cu. yds. rock excav	.60	.90	1.20	1.10
800 cu. yds. earth fill in ravine	.18	.20	.25	.28
105 cu. yds. reinforced concrete bridge	15.00	18.00	14.00	10.75
Earth fill on bridge (lump sum)	100.00	25.00	50.00	300.00
15-in. Sanitary Sewer:				
2,700 ft. sewer laid 0-5 ft. deep	1.00	.60	.50	.70
700 ft. sewer laid 5-10 ft. deep	1.25	.75	.60	1.00
11 brick manholes 0-5 ft. deep (each)	35.00	30.00	25.00	40.00
4 brick manholes 5-10 ft. deep (each)	50.00	40.00	40.00	50.00
5 cu. yds. concrete filling (1-3-6)	10.00	5.50	7.00	8.00
Wet Well and Intake:				
10 cu. yds. concrete (1-2-4)	12.00	6.50	10.00	10.50
160 ft. 14-in. c.-i. pipe laid (av. cut 18 ft.)	6.50	6.00	3.00	5.00
1 c.-i. quarter bend	30.00	10.00	20.00	15.00
45 cu. yds. earth excav. in wet well	3.00	3.50	2.00	1.00
2 cu. yds. rock excav	5.00	5.00	5.00	2.00
Iron ladder (20 ft. long) (lump sum)	15.00	.30	10.00	5.00

★Holland, Mich.—Contract for furnishing material for the sinking of 15 new municipal wells, reported awarded to Jas. E. Claw & Sons, of Chicago, Ill.

Chicago, Ill.—Following are bids opened May 28 for furnishing about 2265 tons c. i. water pipe (a) per ton, (b) totals: U. S. C. I. Pipe & Fdry. Co., Peoples Gas Bldg, (a) $23.90; (b) $54,133; American C. I. Pipe & Fdry. Co., Birmingham (a) $23.85; (b) $54,030.

Prescott, Wash.—Lowest bid opened by Council May 24 for pipe reported submitted by A. Shriner, Walla Walla, as follows: Concrete pipe, $9,074; or Mathison pipe, $8,449.

SEWERAGE AND SEWAGE DISPOSAL

PROPOSED WORK.

Northampton, Mass.—The Sewer Comrs. will ask for an appropriation of $10,000 to be used for construction of a sewer in the West St. and Hospital Hill sections, and for establishment of a pumping station.

Providence, R. I.—City Council Com. on Sewers has voted to recommend resolutions in Common Council for sewers in nine streets.

Kenmore, N. Y.—Citizens voted May 26 to issue $20,000 bonds for surface and storm water sewers. E. W. Johnson, Village Clk.

Atlantic Highlands, N. J.—An election will probably soon be held to vote on issuing $25,000 bonds for sewer extensions.

Pennsylvania.—Following are among the permits issued from Apr. 15 to May 15 by State Dept. of Health at Harrisburg (Dr. Saml. G. Dixon, Comr.):

Cheltenham Township, Montgomery County—Preliminary plans for comprehensive sanitary sewer system and sewage treatment works.

Ebensburg—Intercepting sewer and sewage treatment works.

Johnstown—Preliminary plans for intercepting sewers and sewage treatment works.

Cheyney—Cheyney Training School for Teachers, Cheyney, sewage treatment works.

South Connellsville — Comprehensive sanitary sewer system.

Towanda—Bradford County Almshouse, sewage treatment plant.

Wernersville—Galen Mountain Co., Wernersville, sewage treatment plant.

Danville—Comprehensive sewer system.

Reading—Additions to sewage treatment works.

Annapolis, Md.—The Comrs. of Anne Arundel County will install a sewer system in Germantown.

The city authorities are taking up with U. S. Government the question of cooperating with city and State in the construction of the main drainage and sewage disposal system. A State appropriation of $50,000 will be available in case a like amount is voted by city.

Cambridge, Md.—Plans have been approved by State Bd. of Health for complete sanitary and storm water sewerage system.

Ocean City, Md.—State Board of Health will require installation this year of a part of the sewer system. Plans and specifications for the complete system have already been approved. Engineers, Pugh & Hubbard, Witherspoon Bldg., Philadelphia, Pa.

Salisbury, Md.—See "Water Works."

Warrenton, N. C.—See "Water Works."

Richland, Ga.—Bonds in the sum of $15,000 for sewers will be sold June 7 by P. C. Brown, Town Clk. and Treas.

Tampa, Fla.—Citizens voted to issue bonds to be used to meet a deficit of $76,477 for sewer construction to date and for completion of system as at present planned and the extension of laterals.

Hammond, La.—Citizens voted to issue $40,000 bonds for construction of sewer system.

Niles, O.—There is reported to be a movement on foot looking to construction of a trunk sewer to carry river sewage from Robbins and Vienna Aves.

Hamilton, O.—City Council has authorized City Engineer Frank Weaver to employ an expert to assist in making plans for a sewage disposal plant; cost between $70,000 and $100,000.

Frankfort, Ind.—It is proposed to construct 10,600 ft. of 6 to 15-in. pipe sewers, average depth 10 ft.; estimated cost, $14,650. R. H. Boynton, City Engr.

Indianapolis, Ind.—B. J. T. Jeup, City Engr., states that work on city sewage disposal plant has been delayed and will probably not come up for several months.

Escanaba, Mich.—W. E. McDonald, City Engr., writes the proposed trunk line sewer includes 19,731 lin. ft. 8 to 36-in. pipe sewers and disposal plant of Imhoff type. Will consider segmental block, concrete and vitr. pipe. Estimated cost $80,000. Designing Engineer, T. Chalkley Hatton, Wilmington, Del.

Geneva, Ill.—It is proposed to construct sewers in city east of Fox River. Engineer, W. S. Shields, Hartford Bldg., Chicago.

Mandan, N. D.—City Comrs. securing estimates on cost of constructing storm sewers throughout resident district. Estimated cost $35,000.

Minot, N. D.—E. J. Thomas, City Engr., reported to be preparing plans for extension of sewers east and south of Riverside Park; cost, $20,000.

Watertown, S. D.—About $100,000 will be spent on alterations and additions to sewer system. Contracts will probably be let about July 7th. F. W. Schreiber, City Engr.

Marceline, Mo.—Nothing definite has yet been done toward constructing sewer system.

Malvern, Ark.—City Council has passed an ordinance for creating an improvement district for a sewer system.

Everett, Wash.—City Council decided to construct sewers in alley between Highland Ave. and State St., to cost $11,000. J. W. Hoover, City Engr.

Forest Grove, Ore.—Council reported considering plans for a sewer system.

Mesa, Ariz.—Harry Hancock, of Phoenix, is engineer for proposed sewer system, for which citizens recently voted $75,000 bonds. A. M. Babbitt, Deputy City Clk.

Ogden, Utah—Plans being prepared for 1500 ft. of storm sewer, 24 to 30-in., with inlets and laterals. Washington Jenkins, City Engr.

Parma, Idaho—J. C. Watson, Village Clk., writes it is proposed to construct about 6232 ft. 8, 10 and 12-in. pipe sewers, average depth 10 ft. Engineer, Fred McConnel, of Caldwell.

Bathurst, N. B.—See "Water Works."

BIDS DESIRED.

Greenwich, Conn.—Until June 14 by Sewer Comrs. for about 22,500 ft. sewers in Sewer Dist. No. 9, East Portchester Section, advertised in Engineering Record. S. E. Minor, Engr., Greenwich Trust Co. Bldg., 96 Greenwich, Ave.

Pittsburgh, Pa.—Until June 7 by Dept. Pub. Wks. (Robt. Swan, Dir.) for constructing sewers in Barkers Pl., Carson St., Smoky Island and Penn Ave.

Washington, D. C.—Until June 10 by Commissioners D. C. (Oliver P. Newman, Chmn.) for constructing Sect. 4 of Anacostia Main Intercepter, including 3000 lin. ft. trunk sewer 4 ft. 6 in. x 5 ft., advertised in Engineering Record.

Cleveland, O.—Until June 10 by Commissioner of Purchase and Supplies for constructing sewers in portions of Sandusky and Norman Aves.

Springfield, O.—Reported desired until June 11 by Bldg. Comn. (Geo. McCord, Pres.) for constructing a sewage disposal plant at new infirmary.

Chicago, Ill.—Until June 24 by John McGillen, Clk. Sanitary Dist. Chicago, 910 S. Michigan Ave., for constructing Calumet Intercepting Sewer, Contract No. 3, advertised in Engineering Record.

Chicago, Ill.—Until about June 18 by Bd. Local Improv. (Edw. J. Glacklin, Secy.) for constructing a system of sewers for Norwood Park Sewer System, advertised in Engineering Record.

St. Louis, Mo.—Until June 18 by Bd. Pub. Service (Wm. T. Finley, Secy.) for constructing sewers in various streets, Lettings 112, 113, 114 and 116, 7815 ft. 6-in. pipe, and Letting 115, 3655 ft. 12-in. pipe.

Burlington, Ont.—Until June 15 by Chas. C. Allen, Town Clk., for the following contracts: "A"—Laying sanitary and storm sewers. "P"—Constructing sewage pumping station. "S"—Furnishing sewer pipes. "X"—Constructing sewage disposal works. Chipman & Powers, Engrs., Toronto.

PRICES AND LETTINGS.

★Indicates award of contract.

★Fitchburg, Mass.—Contract for Bemis Rd. siphon connection with main sewer has been awarded to T. A. Cassidy, Fitchburg, at $7,253 (bids opened May 19).

Brooklyn, N. Y.—Following are lowest bids opened May 26 by Pres. Brooklyn Boro. for furnishing material and constructing superstructures of the sewage pumping station, Sect. 2, sanitary outlet sewers, storm outlet sewers and force main in Ave. V, with all sanitary outlet sewers, storm outlet sewers and force main and sewage pumping station: W. H. Egan, 147 E. 125th St., New York, $57,789; J. Kresse Co., 52 Vanderbilt Ave., New York, $61,900; F. G. Fearon Co., 32 Bway., $63,978; Wm. Flanagan, New York, $64,900; Kelly & Kelley, Inc., Long Island City, $67,700; North Eastern Constr. Co., New York, $69,990.

★Huntington, L. I., N. Y.—Contract reported awarded by Comrs. Sewer Dist. (C. M. Felt, Secy.) for constructing sewers and sewage disposal works, from plans of Geo. W. Fuller, 170 Bway., New York, to Frank Nordone, of Mt. Vernon, at $77,949 (bids opened May 14).

Long Island City, L. I., N. Y.—Lowest bid apened May 24 by Pres. Boro. Queens for construction of a sewer and appurtenances in Polk Ave. from 51st St. to Junction Ave., 2d Ward, Boro. of Queens, submitted by Angelo Paino, Brooklyn, as follows: 1991 lin. 4-ft. 3-in. reinforced concrete sewer, $12; 285 lin. ft. 4-ft. concrete sewers, $4; 255 lin. ft. 3-ft. 9-in., $4; 255 lin. ft. 3-ft. 6-in., $4; 239 lin. ft. 3-ft. 3-in., $3.50; 24 lin. ft. 18-in. vitr. salt-glazed pipe sewer, $2; 62 lin. ft. 15-in., $1; 153 lin. ft. 12-in., $1; 27 manholes, complete, ea., $50; 1 cleaning shaft, $100; 12 single receiving basins, $85; 7 double receiving basins, $100; 410 lin. ft. 12-in. pipe for basin connections, 25 cts.; 140 lin. ft. 10-in., 10 cts.; 193 spurs 6-in. on concrete sewers, 24 in. long, 10 cts.; 975 lin. ft. 6-in. pipe for house connection drain, 30 cts.; 1 chamber in 51st St., $100; 1 junction chamber, including basin, at Polk Ave. and 51st St., $90; total, $31,960. Next 3 lowest bids: Peace Bros., Long Island City, $33,501; Clancy & Van Alst, Long Island City, $33,663; Rosenthal Eng. & Contr. Co., Brooklyn, $35,072.

★Syracuse, N. Y.—Contract for sewage disposal plant at county tuberculosis sanatorium reported awarded by County Purchasing Agent Frank X. Wood to P. J. Sullivan Co., at $7,835.

★Palisades Park, N. J.—Contract for sewage disposal plant awarded to Averill-Matthews Co., Essex Bldg., Newark, at $4,980 (bids opened May 11). Unit prices in Engineering Record of May 29.

Ebensburg, Pa.—Lowest bid opened by Boro. Council May 24 for construction of sewage disposal plant submitted by Pitt Constr. Co., Pittsburgh, at $22,300; and for 5000 ft. 15-in. terra cotta sewers, Saupp & Co., Altoona, $3,991. G. A. Flink, Consulting Engr., Commonwealth Trust Bld., Harrisburg; J. L. Elder & Son, Boro. Engrs., Ebensburg.

★West Chester, Pa.—Contract reported awarded by Boro. Council to M. and T. E. Farrell, of West Chester, for constructing 14,000 ft. 8, 10 and 12-in. terra cotta pipe sewers, at $8,800.

Wilkesbarre, Pa.—Lowest bid opened May 25 by city for constructing a 7, 6 and 4 ft. circular sewer and a 24-in. terra cotta pipe sewer, submitted by D. M. Rosser, 167 S. Maple St., Kingston. He bid for circular brick and 24-in. terra cotta $47,586; Natco lock joint sewer tile and 24-in. terra cotta, $45,343; or vitr. segment block and 24-in. terra cotta, $47,020.

★Baltimore, Md. — Contract reported awarded by Bd. of Awards to Slack & Slack for laying storm water drains in scattered section of city, at $100,000.

Easton, Md.—Following are bids opened May 25 by Mayor for constructing 2 sludge beds, 7 sand filter beds and 2 motor driven sludge and sewage pumps with piping, valves, etc., at sewage disposal works, and extension of South Outfall Sewer, from plans of Kastenhuber & Anderson, Acting Town Engrs., Easton: C. W. Sigman, Easton, $14,428; Lohmuller & Boyle, Calvert Bldg., Baltimore, $18,442; John A. Clark, 603 W. 5th St., Wilmington, Del., $21,270.

Unit prices of C. W. Sigman, lowest bidder:

1,568 ft. 5 in. t.-c. pipe drains	$0.24
867 ft. 8 in. t.-c. pipe drains	.28
120 ft. 10 in. t.-c. pipe drains	.38
41 ft. 12 in. t.-c. pipe drains	.49
38 5 in. Ys or Ts on 8 in.	.89
8 5 in. Ys or Ts on 10 in.	1.10
545 ft. 6 in. c.-i. mains	1.14
11 6 in. gate valves	19.55
14 distributing tables	22.33
8 manholes	22.00
5 manhole castings—solid	11.00
3 manhole castings—grate	12.00
5 cu. yds. concrete masonry	10.00
1,450 cu. yds. earth embankment	.75
4,825 cu. yds. filter material	1.76
2 motor equipment } 2 pump equipment }	540.00
10 cu. yds. extra excavation	.75
85 ft. timber sludge trough	1.10
1,300 ft. 12 in. t.-c. pipe sewer	.79
150 ft. 12 in. c.-i. pipe sewer	2.97

★Richmond, Va.—Contract awarded for construction of a portion of the Bacon Quarter Branch sewer to McAughey & Van Doren, at $65,000.

★Cincinnati, O.—Contract awarded for constructing sewers in Latham and Beach Aves. to Connelly Constr. Co., of Cincinnati, at $17,108 (bids opened May 11).

★Palisades Park, N. J.—Following are unit prices of 4 lowest bids opened May 11 by Mayor and Boro. Council for constructing sewers, Contract A: (a) Rudolph Garoni, Anderson Ave., Ft. Lee, $50,934 (awarded contract); (b) Di Napoli & Toriello Constr. Co., 11 Bway., Hackensack, $53,341; (c) Fred E. Gross & Son, Inc., 726 Palisade Ave., Yonkers, $55,270; (d) Martin, Miller & Pizzimenti, Caldwell, $55,375. (Lemuel Lozier, Boro. Engr., Central Boule. and Broad Ave., Hackensack.)

	*(a)	(b)	(c)	(d)
20 ft. 6-in. vitr. sewer, 6 ft. deep	$0.40	$0.36	$0.50	$0.35
69 ft. 6-in. c.-i. sewer (siphon), 6 ft. deep	1.00	.83	.75	2.00
138 ft. 8-in. c.-i. sewer (siphon), 6 ft. deep	1.25	1.00	1.00	2.25
36 ft. 8-in. c.-i. sewer 6-10 ft. deep	1.25	1.30	1.25	1.00
2,090 ft. 8-in. vitr. sewer 6 ft. deep	.50	.46	.45	.40
19,538 ft. 8-in. vitr. sewer 6-8 ft. deep	.52	.54	.55	.48
6,470 ft. 8-in. vitr. sewer 8-10 ft. deep	.58	.72	.75	.63
170 ft. 8-in. vitr. sewer 10-12 ft. deep	.65	.94	1.00	.90
24 ft. 10-in. c.-i. sewer 6 ft. deep	1.50	1.35	1.50	1.50
494 ft. 10-in. vitr. sewer 6 ft. deep	.48	.61	.52	.45
1,847 ft. 10-in. vitr. sewer 6-8 ft. deep	.48	.68	.65	.58
1,982 ft. 10-in. vitr. sewer 8-10 ft. deep	.65	.86	.85	.73
465 ft. 10-in. vitr. sewer 10-12 ft. deep	.88	1.02	1.15	1.00
130 ft. 10-in. vitr. sewer 12-14 ft. deep	.90	1.25	1.50	1.25
148 ft. 12-in. vitr. sewer 6-8 ft. deep	.80	.78	.70	.68
657 ft. 12-in. vitr. sewer 8-10 ft. deep	.85	.96	1.00	.80
320 ft. 12-in. vitr. sewer 10-12 ft. deep	1.00	1.14	1.25	1.10
165 ft. 12-in. vitr. sewer 12-14 ft. deep	1.10	1.40	1.60	1.45
125 ft. 12-in. vitr. sewer 14-16 ft. deep	1.25	1.73	2.00	2.00
40 ft. 12-in. vitr. sewer 16-18 ft. deep	1.50	2.00	2.75	2.75
534 ft. 15-in. vitr. sewer 6 ft. deep	.65	.84	.75	.70
718 ft. 15-in. vitr. sewer 6-8 ft. deep	.75	.97	.90	.85
448 ft. 15-in. vitr. sewer 8-10 ft. deep	.85	1.13	1.15	1.00
341 ft. 15-in. vitr. sewer 10-12 ft. deep	1.00	1.35	1.45	1.35
153 ft. 15-in. vitr. sewer 12-14 ft. deep	1.40	1.70	1.80	2.00
150 ft. 15-in. vitr. sewer 14-16 ft. deep	1.80	2.20	2.25	2.50
431 ft. 15-in. vitr. sewer 16-18 ft. deep	2.20	2.45	3.00	3.25
984 ft. 15-in. vitr. sewer 18-20 ft. deep	2.35	3.00	3.50	3.75
121 ft. 15-in. vitr. sewer 20-22 ft. deep	2.50	3.50	4.00	4.00
500 ft. 16-in. c.-i. sewer 6 ft. deep	2.25	2.00	2.30	2.25
22.5 ft. 20-in. c.-i. sewer 6 ft. deep	3.00	2.75	3.50	3.00
480 ft. 20-in. c.-i. sewer on concrete piers	3.00	2.60	3.00	3.25
432 ft. 20-in. c.-i. outfall sewer	3.00	3.00	5.00	10.00
482 ft. 20-in. vitr. outfall sewer, 6 ft.	1.00	1.20	2.50	2.50
480 ft. 80-6-in. Y branch house con. in rock	1.90	.25	.30	.35
577 ft. 88-deep sewer 6-in. pipe, drop house con.	1.00	.25	.30	.45
150 manholes	55.00	42.00	36.00	30.00
105 ft. additional height of manholes over 8½ ft.	7.00	3.00	4.00	5.00
10 sewer drop con. at manholes	25.00	5.00	10.00	7.00
2 siphon chambers or manholes	100.00	175.00	50.00	125.00
5,000 ft. 6-in. underdrain	.20	.27	.25	.20
39 conc. piers or piles under 20-in. c.-i. sewer	10.00	12.00	5.00	7.00
800 cu. yds. embankment fill over 20-in. c.-i. sewer	.75	.40	.50	1.25
24 ft. 20-in. c.-i. pipe cul. on piles emb. filling	3.50	2.40	3.25	5.00
300 cu. yds. concrete, Class "B," in foundation	5.00	5.75	6.00	6.50
1,000 lin. ft. piles	.50	.60	.40	.50
1 M ft. yellow pine timber	50.00	50.00	50.00	40.00
45 M ft. hemlock timber	35.00	45.00	40.00	40.00
200 cu. yds. broken stone in foundation	2.00	2.00	1.50	2.25
1 M ft. sheeting and shoring	40.00	38.00	40.00	38.00
2,000 cu. yds. rock excavation	2.00	2.75	3.00	3.00
50 cu. yds. cinder fill, 20-in. vitr. outfall sewer	1.50	1.25	1.00	2.00

Racine, Wis.—Following are bids opened May 22 for constructing brick sewers: (a) Hans C. Hansen, Racine, $79,976; (b) Johnson & Thomsen, Racine, $81,884; (c) Jas. Cape & Sons Co., Racine, $82,813; (d) E. R. Harding Co., Racine, $84,106; (e) Albert H. Frange, Grand Rapids, Mich. (segment block or concrete pipe to be used), $86,632. P. H. Connolly, City Engr.

Brick Sewer:	(a)	(b)	(c)	(d)	(e)
3,522 ft. 66-in.	$11.50	$11.75	$11.00	$12.10	$12.00
1,778 ft. 60-in.	9.00	9.05	10.00	8.25	10.00
587 ft. 54-in.	8.00	8.15	9.50	7.90	9.00
1,353 ft. 36-in.	5.35	5.55	5.70	5.55	5.50
624 ft. 30-in.	4.30	4.23	3.00	3.25	3.10
327 ft. 27-in.	3.50	3.65	2.75	3.25	2.75
323 ft. 18-in. pipe	1.50	1.65	1.60	1.50	1.50
26 manholes	45.00	55.00	60.00	75.00	60.00
33 catchbasins	38.00	40.00	38.00	50.00	45.00
155 ft. concrete outfall complete	4,800.00	5,000.00	6,900.00	7,500.00	7,500.00

★Toledo, O.—Contract for Lucas County Main Sewer No. 11 was awarded May 14 to Albert Crzybowski, 228 E. Central Ave., Toledo, at $31,550. Work includes about 3 miles of main sewer and laterals. Wm. H. Gould, County Sanitary Engr.

★Green Bay, Wis.—Contract for constructing sewers (bids opened May 27) awarded to C. P. Flatley of Green Bay as follows: 42 in. Parmerley per lin. ft., $5.80 or $7.22; 36-in., $6.05 and $4.95, and 24-in., $1.36; 20-in., $2.25; 12-in., 77 cts.

Green Bay, Wis.—Lowest bid opened May 18 for constructing sewers submitted by Ben. Waerzeggers, Green Bay, as follows: 12-in. pipe, Baird St., 69 cts. per ft.; 12-in. pipe, Vanburen St., 59 cts.; 24-in. pipe, Webster St., $1.32.

★Wausau, Wis.—Contracts awarded for constructing pipe sewers (bids opened May 27), as follows: To Carl Lotz, Wausau, for Belles St. sewer 27 to 48 in. 2200 ft., $9,500; Greenfield Ave. sewer 15 to 20 in. 1800 ft., $2,600; Seventh St. sewer 30 in. 1750 ft., $5,150, and to F. W. Krause, Wausau, for Franklin St. sewer 1100 ft. 24 to 36 in., at $2,660. Contract price includes manholes and catch basins. B. C. Gowen, City Engr.

Duluth, Minn.—Lowest bid opened by City May 24 for furnishing sewer material for season submitted by the Duluth Builders' Supply Co., at $18,694.

★Stockton, Cal.—Contract has been awarded by City Comrs. to Bishop & Tumelty for installing sanitary sewers in the Gambetta and Jensen additions, at $7,285.

★Stratford, Ont.—Contract awarded to Brennan & Hollingsworth, Hamilton, for 6200 ft. 48-in. reinforced concrete sewer tile, at $2.79 per ft.; 5400 ft. 36-in. at $1.71 (bids opened May 15). A. B. Manson, City Engr.

BRIDGES

PROPOSED WORK.

Lowell, Mass.—The Luten Engineering Co. submitted to Municipal Council preliminary plans for constructing Pawtucket Bridge.

Schenectady, N. Y.—The Governor has signed bill providing for a commission of five members, to investigate need of a bridge across Mohawk River at Schenectady.

Elizabeth, N. J.—Construction of concrete arch bridge at Union Ave. is reported contemplated by Bd. Chosen Freeholders; cost, $12,000.

Cincinnati, O.—See "Paving and Road-making."

Cincinnati, O. See "Railroads."

Minneapolis, Minn.—Great Northern R. R. Co. (A. H. Hogeland, Ch. Eng. St. Paul, Minn.), and Minneapolis & St. Louis R. R. Co. (R. G. Kenly, ch. Engr., Minneapolis), contemplates constructing steel bridge at 3d Ave. and 5th Ave. n.; cost $29,850.

Eugene, Ore.—Plans have been prepared by H. W. Libby, County Engr., for Coast Fork Bridge; cost $11,000.

Harrisburg, Ore.—Linn and Lane Counties contemplates constructing a bridge over Siuslaw River; cost $60,000. Eugene county seat Lane County.

Lebanon, Ore.—Plans have been completed by County Engineer for steel span bridge, 334 ft. long, resting on concrete piers, to be built across Santiam River; cost $20,000.

Redlands, Cal.—Plans have been prepared by Jas. Sourwine, Co. Engr., for constructing bridge over Colorado River.

Salt Lake City, Utah.—Plans have been completed by Oregon Short Line R. R. Co. (Carl Stradley, Ch. Engr. Salt Lake City), for improvements to viaduct at N. Temple St.; cost about $150,000.

Vancouver, B. C.—Contract will soon be let by City Council for reconstructing portion of Connaught Bridge recently destroyed; cost $90,000.

BIDS DESIRED.

Phoenixville, Pa.—According to press reports until June 8 by A. C. Shand, Ch. Engr., Pennsylvania R. R., Broad St. Station, Philadelphia, for constructing on the Schuylkill Division of the said road a reinforced concrete bridge consisting of 7 arches, 93 ft. center to center of span.

Lumpkin, Ga.—Until June 8 by Co. Comrs. (S. S. Fort, Chmn.) for constructing a steel bridge across Pataula Creek, 7 miles from Lumpkin; also a steel bridge across Pataula Creek, below present Summerfield Bridge on Lumpkin and Cuthbert Road, each 130 ft. main span and 70 ft. and 30 ft. span at each end.

Lebanon, O.—Until June 28 by Co. Comrs. for constructing a 160 ft. high truss steel bridge with creosoted plank and block floor over Caesar's Creek at Haines Crossing, in Massie Township. Steel to be used has formerly been in Kings Mills River Bridge, and additional material to be supplied; concrete abutments with piling foundation and earth fill for said bridge. John M. Mulford, Co. Aud.

Waverly, O.—Until June 14 by County Comrs. for constructing a single span steel bridge over Sunfish Creek, 123 ft. in length. I. B. Fylar, Co. Aud.

Zanesville, O.—Until June 7 by County Comrs. (F. C. Werner, Clk.) for furnishing material and constructing a steel superstructure over Thompson's Creek, Springfield Township, to consist of single span, 60 ft. long c. to c., 16 ft. roadway.

Illinois.—See "Paving."

Illinois—Bids desired for bridge work in Illinois as follows:

Until June 12:

Mt. Sterling, alternate plans for either a reinforced concrete or steel bridge to be built in Pea Ridge Township, known as Brady Bridge, span 60 ft., 18 ft. roadway. Engineer's estimate for concrete bridge, $3,660 and for steel bridges $2,855; also 2 reinforced concrete bridges, to be built between Cooperstown and Ripley townships, known as Friday and Long bridges, spans 30 and 36 ft. roadways, each 18 ft. Engineer's estimate for two bridges, $1,970. W. O. Grover, Co. Supt. Highways.

Montezuma, Ia.—Reported desired until June 7 for constructing a concrete slab bridge, 9 steel bridges, and 15 reinforced concrete culverts. W. C. McKee, Co. Aud.

Hanson, Okla.—Reported desired until June 8 by County Comrs. for constructing an 87-ft. span steel bridge.

Sallisaw, Okla.—Reported desired until June 8 by A. Blackard, Co. Clk., for constructing an 87 ft. span steel bridge over Big Skin Bayou Creek.

Topock, Ariz.—Until June 19 by Cato Sells, Comr. Indian Affairs, Dept. Interior, Washington, D. C., for constructing a steel highway bridge across Colorado River near Topock, Ariz., advertised in Engineering Record. Plans on file at N. Y. Office Engineering Record, 239 W. 39th St.

Toronto, Ont.—Until June 9 by Frank Barber, Township Engr., 57 S. Adelaide St., Toronto, for constructing a reinforced concrete bridge on town line between King and East Guillimbury Townships, known as H 4 Bridge.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Concord, N. H.**—Contract awarded to Berlin Constr. Co., Berlin, Conn., for constructing 4 steel bridges in Concord, and to the Penn Bridge Co., of Beaver Falls, Pa., for the Main St. bridge at Penacook. Total cost, $86,000. Henry E. Chamberlin, City Clk.

Middletown, Conn.—Lowest bid opened by Bd. Selectmen for constructing concrete bridge over Sumner Creek submitted by Mr. Holbrook, Westbrook, at $6,544.

Buffalo, N. Y.—Bid of American Bridge Co., Buffalo, for constructing Chicago St. Viaduct, is recommended for award by Aldermanic St. Com. at $185,000.

★**Warsaw, N. Y.**—Contract for constructing concrete bridge over Pearl Creek on Wyoming Pearl Creek State Rd. awarded to Warsaw Constr. Co., at $6,000.

★**Leesport, Pa.**—Contract for constructing concrete bridge over Schuylkill River awarded by County Comrs. at Reading to Wuttaker & Diehl, Harrisburg, at $17,447.

★**Phoenixville, Pa.**—Contract for constructing temporary bridge over Schuylkill River awarded by County Comrs. to Bender Constr. Co., at $7,448.

★**Georgetown, Del.**—Contract awarded June 1, for constructing bridge over Marshy Hope Creek, to Haman & Mixner, Cape May, N. J. at $3,500. Morgan T. Gunn Co., Road Engr.

Memphis, Tenn.—Following are 3 lowest bids opened May 18 by City Comrs. for building outfall culvert over the Bayou Gayoso from new pumping station to Wolf River: W. R. Hughes & Co., $14,664; Koehler Bros.-Fowler Constr. Co., $19,314; G. O. White & Co., $19,671.

★**Louisville, Ky.**—Contract for constructing concrete bridge 230 ft. long over Floyd's Park Creek awarded by Fiscal Court to Hoke Co., Louisville, at $15,222.

★**Illinois.**—Contracts awarded by State Highway Dept., Springfield, for bridge as follows:

Opheim Bridge, in Lynn Township, Henry County, to Chas. Wynn, at $2,016.

Burlingame Bridge, Earl Township, La Salle County, to Eph Swensen, Sheridan, at $2,545.

Empire Township Drainage Bridge, Empire Township, McLean County, to Walesby & Gammie Co., at $2,450.

Zinn Bridge, in Adams and Hancocks Counties, to J. K. McCollom, Lewiston, Mo., at about $4,995.

★**Lincoln, Neb.**—Contract for constructing 700 ft. steel bridge over North Platte River awarded by County to Omaha Structural Steel Co. at $36,000.

★**North Platte, Neb.**—Contract awarded for constructing a bridge across North Platte River about 2 miles east of North Platte to Omaha Structural Steel Co., Omaha, for truss steel bridge, composed of seven 100-ft. spans, 20-ft. roadway, concrete floor, concrete piers and concrete abutments, resting on steel piles. Cost complete with fills $36,000.

★**Kansas City, Mo.**—Work is about to start on the construction of the Hannibal bridge over the Missouri River for the Burlington Ry. Co. The Union Bridge & Constr. Co., of Kansas City, has contract for the substructure; and steel superstructure will be constructed by engineers of the railroad; total cost about $1,000,000. The new bridge will be 1555 ft. in length. The substructure will consist of one 47-ft. octagonal pier, 4 rectangular piers, each measuring 27 x 72 ft., 2 abutments and several smaller piers.

★**Montesano, Wash.**—Contract for constructing 3 steel bridges across Wiskah River awarded by County Comrs. to Coast Bridge Co., Portland, Ore., at $16,448.

California.—Bids were opened May 24 by California Highway Comn., Sacramento, for constructing a plate girder bascule 80 ft. clear span bridge in Yolo County, easterly side of Yolo Bypass. Lowest bid submitted by Ross Constr. Co., Sacramento, as follows: Entire structure complete (lump sum), $24,906; reinforced concrete piles, driven in place, per lin. ft., $1; cement concrete Class C (footings), per cu. yd., $7; cement concrete Class C (counterweight), per cu. yd., $5; reinforcing steel, cwt., $3. Other bids: Midland Bridge Co., Kansas City, Mo., $26,862; Graff Constr. Co., Seattle, Wash., $35,900; Seabury & Peterson, San Francisco, $37,984. Engineer's estimate, $21,818. Work includes about 70 tons structural steel, 24,000 lbs. heavy steel castings, 5100 lbs. light steel castings, 2700 lbs. shafting and couplings, 1300 lin. ft. reinforced concrete piles, 54,900 lbs. reinforcing steel, 15 M ft. timbers in fenders, etc. Total length, 141 ft.

★**Idaho City, Idaho.**—Contract for constructing 2 bridges awarded by Bd. County Comrs. to Missouri Valley Bridge & Iron Co., Denver, Colo., one over North Fork Payette River and one over Clear Creek at Alpha, at $6,800 and $2,000.

★**Toronto, Ont.**—Bowman & Connor, Co. Engrs., 31 Queen St., write contracts for county bridges have been awarded as follows: M. M. Hiles, Atwood, for 5 concrete beam spans, at $2,877; to H. E. Croft, Guelph, for 32 ft. arch truss, at $875; Frontier Constr. Co., Niagara Falls, for 30-ft. arch truss and 20-ft. concrete beam at $1,830; to J. W. Hunt, Holstein, Ont., for 4 concrete beam bridges, $1,447.

PAVING AND ROADS

PROPOSED WORK.

Weston, Mass.—Town meeting May 27 appropriated $10,000 to construct a road in center of town.

Windsor Locks, Conn.—It is proposed to construct concrete sidewalks on Spring, Main, Church and Grove Sts. Address Thos Costello, 1st Selectman.

Buffalo, N. Y.—Common Council voted to pave and repave with asphalt Austin, Main, Bridgeman and Georgia Sts. and Bailey Ave., and with brick Hubbell Ave.

Long Island City, N. Y.—Bd. Estimate appropriated $100,000 for repaving streets in Boro. Queens.

Medina, N. Y.—Citizens voted $22,500 bonds for extending pavements from West Center St.

Watertown, N. Y.—Contracts are about to be let by city for paving Mill St. and Upper Washington St.

Keyport, N. J.—Arthur S. Van Buskirk, Boro. Clk., writes it is proposed to pave Broad and Main Sts. with concrete, about 20,000 sq. yds., and bluestone curb, 6000 lin. ft. Cost $32,000. To be paid for by State, County and Borough. Bids to be called for about July 1. Engineer, Geo. D. Cooper, Red Bank.

Newark, N. J.—Contracts are about to be let by Millburn Township Com. for paving Prospect, Mountain Aves., Cypress Pine and Elm Sts.

Philadelphia, Pa.—The Mayor approved ordinance providing for paving with asphalt Brill, Harrison, Leiper, Paul and Bridge Sts. in Frankford.

Georgetown, Del.—It is reported that Gen. T. Coleman du Pont contemplates constructing 18-mile boulevard between Georgetown and Shelbyville.

Asheville, N. C.—Bd. County Comrs. voted to resurface with bitulithic Hominy Rd. between West Asheville and Sulphur Springs; cost about $25,000.

Elkin, N. C.—Citizens Elkin Township voted $35,000 bonds for constructing roads.

Lincolnton, N. C.—About $20,000 is to be spent by city for improvements, including pavements.

Roxboro, N. C.—Road improvement bonds in the sum of $75,000 will be sold June 25 by the Highway Comn. (R. A. Burch, Secy.)

West Palm Beach, Fla.—Citizens voted $800,000 bonds for constructing roads in Palm Beach County.

Campti, La.—Citizens voted $40,000 bonds for road improvements.

Newport, Tenn.—Citizens voted $200,000 bonds for constructing roads in Cooke County.

Morristown, Tenn.—Citizens of Hamblen County voted $150,000 bonds for constructing macadam roads.

Covington, Ky.—Kenton County Comrs. approved plans for paving with concrete Lexington Pike.

Canton, O.—About $16,000 road improvement bonds have been sold by Bd. Trus. Canton Township.

Cincinnati, O.—County Comrs. approved plans and specifications for improving Lees Creek Rd. with gravel and glutrin; estimated cost $13,139; improve Compton Rd., cost $11,320; rebuilding bridges and culverts on Cameron Rd., cost $6,511.

Defiance, O.—City Council voted to spend $80,000 for street improvements.

Niles, O.—City Council voted to pave Girard, Erie, Wood, Fulton Sts., Franklin and Heaton Aves.

Polk, O.—Reported bonds in the sum of $45,000 will be sold June 21 by Fredk. Hartsell, Clk. Bd. Trus., Jackson Township, to be used for grading, draining and macadamizing roads in said township.

Boonville, Ind.—Bonds in sum of $28,600 have been sold by Greer Township for rock roads.

Elkhart, Ind.—It is proposed to pave Garfield and E. Beardsley Aves. and N. 2d St. with sheet asphalt, about 24,000 sq. yds., 11,000 lin. ft. concrete curb, concrete foundation; cost about $51,000. B. I. Bixler, City Clk. L. M. Russell, City Engr.

Ft. Wayne, Ind.—Bd. Pub. Wks. voted to construct sidewalks on numerous streets.

Rock Island, Ill.—It is proposed to pave 9th St. from 18th to 48th Ave., about 31,000 sq. yds. brick paving, on 5-in. concrete foundation, 21,600 lin. ft. curb and gutter. Contract to be let about Aug. 1. Wallace Treichler, City Engr.

Milwaukee, Wis.—Contracts are about to be let by city for paving with creosoted block Grand Ave.; cost $18,000.

Mt. Ayr, Ia.—J. N. Lineburg, City Clk., writes it is proposed to pave about 20 or 30 blocks this year.

Spencer, Ia.—This city will ask for bids on about 50,000 sq. yds. pavt. about July 24. Bids will be received on brick block, sheet asphalt, creosoted wood and reinforced concrete. Plans not prepared. E. O'Keeffe, City Engr.

Winona, Minn.—It is proposed to pave 29,394.9 sq. yds. with brick; Purington block to be used, 1-in. sand on macadam foundation.

Dillon, Mont.—City Council voted to construct cement sidewalks on S. Pacific St.; estimated cost $12,000.

Great Falls, Mont.—County Comrs. contemplate constructing 8 miles Portage Rd.

Helena, Mont.—City Engineer has been directed to prepare plans for paving Lawrence St.; cost about $10,000.

Jourdanton, Tex. — Citizens voted $10,000 bonds for street improvements.

Pueblo, Colo.—It is proposed to pave 22,000 yds. brick pavt. on 5-in. concrete base, 7700 ft. concrete curb on Grand Ave. and Court St., Paving Dist., Victoria Ave. to N. line of 5th St. D. P. Gaymon, City Engr.

Aberdeen, Wash.—City Council voted to pave Washington St.; cost about $10,000.

Bellingham, Wash.—City Council voted to pave James St., construct concrete walks on North and Kentucky Sts.; cost $12,000.

Cheney, Wash.—City Council voted to grade and construct sidewalks on both side of 17 streets.

Camas, Wash.—Plans have been completed by City Engineer for paving Oneonta St.; cost $10,000.

Kalama, Wash.—Surveys are about to be made by Chas. I. Signer, County Engr., for State road from Kelso to coast, via Skamokawa and Cathlamet. About $75,000 is available for improvement.

Mt. Vernon, Wash.—Contract is about to be let for paving Cleveland, Willard and Hazel Sts.; cost about $15,000.

Oroville, Wash.—Contract is about to be let for macadamizing Main St. and constructing cement walks on Spokane, Main, Victoria, Vancouver and Similkameen Aves.; cost about $11,000.

Pomeroy, Wash.—Surveys have been completed by R. W. Rigsby, County Engr., for improvements to Permanent Highway between Pomeroy and Lewiston by hard surfacing. About $30,000 is available for work.

Plans and specifications have been prepared by J. E. Tupper, City Engr., for $21,386 sq. yds. pavement on Main St.; cost estimated at $42,678.

Pullman, Wash.—City Council voted to pave Indiana St. and north end of Star Route.

Seattle, Wash.—Plans and specifications have been prepared for paving W. Massachusetts St.; cost $32,000; and 10th Ave., about 55,000 sq. yds. brick pavements required.

All bids opened by King County Comrs. May 17 for constructing Permanent Highway No. 9 have been rejected. New bids will be received.

City Council considering paving with concrete 3 miles 35th Ave. S. W.

Spokane, Wash.—Construction of highway from end of paving on Grand Boule. at 29th Ave. to Palouse Highway at south city limits is contemplated by city; esimated cost $25,000.

Contract is about to be let by County Comrs. for hard surfacing 4 miles North Rd.

Tacoma, Wash.—City Council voted to construct 4 miles concrete sidewalks in North End District; cost about $10,000.

Tillamook, Ore.—Contract will be let about middle of June for paving with concrete and asphalt surface on 5th St. and 2d Ave.; cost about $31,000.

California.—The Governor signed the bill providing for completion of state highways and for constructing 7 new laterals connecting the coast with interior trunk lines in various counties. Election will be held in November on question of issuing $15,000,000 road bonds.

Hanford, Cal.—Bonds in the sum of $672,500 for highways will be sold June 5 by County Supervisors. Bids not yet asked for construction work. Engineer, Ben Duffield, of Hanford.

Los Angeles, Cal.—City Council considering paving 3d, Palos Verdes and Lawrence Sts.

Between 50 and 60 miles of paving will be laid this fiscal year, to include asphalt, concrete, bitulithic, vitr. block and granite block.

San Jose, Cal.—Common Council voted to pave 2d, Grant and San Carlos Sts.

Florence, Ariz.—Citizens voted $150,000 bonds for constructing county roads.

Phoenix, Ariz.—City Engrs. Dept. preparing plans for a large improvement district, and will ask bids on various types of paving.

Ogden, Utah.—Construction of Ogden River Boule. is contemplated by City Comn.; estimate cost $110,880.

Ft. Erie, Ont.—About $12,500 is to be spent by city for road improvements.

BIDS DESIRED.

Albany, N. Y.—Until June 7 by Isidore Wachsman, Secy. Bd. Contract and Supply, for paving portions of Bway., Dean and other streets with granite block, on concrete foundation, granite and concrete curb, concrete and promenade tile walks, etc.; security $25,000; Glenwood Ave. and other streets with asphalt on concrete foundation, curb and sidewalks, etc.; security $20,000; Homestead Ave., with asphalt, concrete curb and walks, etc.; security $20,000; vitr. shale block on S. Swan St.; security $2,000, and Cleveland St. with vitr. shale block or asphalt; security $1,800.

Brooklyn, N. Y.—Until June 9 by L. H. Pounds, Boro. Pres., for regulating and repaving portions of Miller and 2d Aves., Washington, Van Brunt and several other streets, requiring in all approximately 48,665 sq. yds. asphalt, 31,590 sq. yds. grade 1 granite, 12,700 sq. yds. iron slag and 1,535 sq. yds. wood block pavement, etc.

Jersey City, N. J.—Until June 10 by Bd. Comrs. for repaving portions of Montgomery St. Michael I. Fagen, City Clk.

Newark, N. J.—Until June 17 by Bd. Street and Water Comrs. (Morris R. Sherrard, Chm.), for repaving Ferry St. and paving Clifton Ave., Oraton and Richards Sts., requiring 8900 sq. yds. wood block, and 12,900 sq. yds. asphalt pavement, etc.

Rahway, N. J.—Until June 8 by Common Council for paving Milton Ave. from Pennsylvania R.R. to St. Georges Ave., requiring approximately the laying of 10,276 sq. yds. sheet asphalt pavement on a 6-in. concrete foundation, resetting 5311 lin. ft. curb in concrete and excavate present surface of street to subgrade. Franklin Marsh, City Engr.

West New York, N. J.—Until June 8 by Jas. L. Wolfe, Town Clk., for improving 22d St.

Pittsburgh, Pa.—Until June 7 by Dept. Pub. Wks. (Robt. Swan, Dir.), for repaving Manton Way, Market Pl. and Carson St.

Until June 10 by H. M. Cribbs, County Comptroller, for constructing highways as follows: Fox Chapel Rd., O'Hara and Indiana townships, about 5.13 miles; Middletown Rd., Chartiers Township, 1¼ miles; Bower Hill Rd., Collier Township, ¼ mile; Thompson & Wible Run Connecting Rd., Shaler Township, 2.4 miles; Oakland Rd., Chartiers Township, 0.44 miles; Jacks Run Rd., Ross Township, 1.6 miles.

Easton, Md.—Until June 16 by Mayor and Council for 5000 lin. ft. concrete curbs and gutters, advertised in Engineering Record. Kastonhuber & Anderson, Acting Town Engrs., Easton. Jas. B. Clark, Town Clk.

Maryland.—Until June 15 by State Roads Comn., Baltimore (Wm. L. Marcy, Secy.) for constructing State highway from Marion to Hopewell, about 4.40 miles in length (concrete).

Until June 22 same place as above for following:

Contract No. B-22, Baltimore County, resurfacing one section of York Road about 1.04 miles.

Contract 042 Cecil County, one section 2.08 miles (concrete or macadam).

Contract 0265, Caroline and Talbot Counties, one section about 1 mile (macadam).

Rockville, Md.—Until June 15 by Co. Comrs. for constructing a section of State Aid highway along Clarksburg Road between Burdette and Boyd, about 1.38 miles. Berry E. Clark, Co. Clk.

Arcadia, Fla.—Until June 7 by A. L. Durrance, Clk. Circuit Court, for clearing and grubbing the several divisions of the systems of roads in Punta Gorda Special Road and Bridge Dist. of De Soto County, aggregating 110 miles. J. S. Bannister, Dist. Engr., Punta Gorda.

De Land, Fla.—Until June 30 by Co. Comrs. (Saml. D. Jordan, Clk) for about 35.96 miles of roadway in Second Comr's. Dist. and 17.47 miles in First Comr's. Dist.; both proposals advertised in Engineering Record. Brick, sheet asphalt, asphaltic concrete, modified asphalt, asphaltic macadam or shell to be considered. J. B. McCrary Co., Engrs., 1408 Third Natl. Bank Bldg., Atlanta, Ga.

Carlisle, Ky.—Until June 8 by John F. Sugg, Co. Clk., for reconstructing about 50 miles of macadam road; probable cost $100,000.

Covington, Ky.—Until June 8 by County Fiscal Court, for constructing 3 miles concrete road, 18 in. wide. John R. Dillon, Co. Clk.

Maysville, Ky.—Until June 7 by Mayor and Bd. Council for paving with vitr. brick and curbing portions of Sutton, Market, Bridge, 3d and 2d Sts.

Berlin Center, O.—Until June 12 by Trus. Berlin Township (S. M. Rakestraw, Clk.), for grading and macadamising the east and west center road in Berlin Township from County line east to station 134 x 25.

Columbus, O.—Until June 15 by Geo. A. Borden, Dir. Pub. Service for relocating Grand Drive in Franklin Park and grading and paving same.

Grand View Heights, O.—Until June 29 by Thos. G. Constable, Village Clk., for grading and paving with macadam Wyandotte Lane and Lincoln Road, and concrete curbs and gutters and sidewalks. Burgess & Long, Engrs., Columbus Savings & Trust Bldg., Columbus.

Toledo, O.—Until June 29 by County Commissioners, for furnishing material, grading, draining and surfacing with a waterbound macadam or a bituminous binder, Monclova, Township stone and gravel road No. 63, a distance of about ¼ mile; also with a bituminous binder, Monclova Township and Maumee Village stone and gravel road No. 64, about 3.35 miles, all in Monclova Township.

Utica, O.—Until June 12 by Village Council (Edw. Ottman, Clk.) for improving 4 streets with brick on concrete foundation, concrete curb and drainage sewers; approximate quantities 15,600 sq. yds. Swaitz & Irwin, Engrs., Newark, O.

Indiana.—By County Commissioners for constructing roads as follows:

Until June 7:

English, stone roads in Sterling and Union Townships. Jas. B. Enlow, Co. Aud.

Kentland, a macadam road in Colfax Township. S. B. Sizelove, C. Aud.

Jeffersonville, a macadam road in Silver Creek Township. G. W. Stoner, Co. Aud.

Until June 8:

Kokomo, a gravel road in Howard Township, stone road in Clay Township, and concrete and gravel road in Union Township. E. B. Swift, Co. Aud.

Sullivan, gravel roads in Jackson, Curry and Cass Townships and stone roads in Haddon Township. W. S. Bicknell, Co. Aud.

Princeton, stone roads in Columbia, Montgomery, Union and Johnson Townships, 5 in all. W. T. Roberts, Co. Aud.

Corydon, a macadam road on line between Webster and Harrison Townships. J. L. O'Bannon, Co. Aud.

Bloomfield, a macadam road in Wright Township. Geo. E. Kidd, Co. Aud.

Noblesville, 3 miles concrete boulevard. Probable cost $53,000.

Chicago, Ill.—Until June 9 by Bd. Local Improv. (Edw. J. Glackin, Secy.), for improving portions of Calumet Ave., W. 19th, W. 76th, LeMoyne, Fulton and a number of other streets. Bids desired on asphalt, vitr. brick, granite blocks and asphaltic concrete pavement.

Illinois.—Until June 9 by State Highway Comn., Springfield (Wm. W. Marr, Engr.), for constructing State aid work as follows: (All cement to be furnished by State, except as noted).

Union Co. (nearest P. O. Anna)—Macadam, Sect. A, 2200 ft. Cost $3,075.

Bond Co. (nearest P. O. Greenville)—Brick, Sect. B, 600 ft. Cost $1,567.

Livingston Co. (nearest P. O. Dwight)—Brick, Sect. B, 2800 ft. Cost $6,340.

Kane Co. (nearest P. O. Batavia)—Concrete, Sect. C, 2700 ft. Cost $5,369.

Franklin Co. (nearest P. O. Whittington)—Sect. B, bridges 113 cu. yds. Cost $1,312.*

Pulaski Co. (nearest P. O. Mound City)—Sect. A, bridges, 277 cu. yds. Cost $3,315.*

Jasper Co., bridges, Sect. A, 210 cu. yds. Cost $2,636.*

Sect. B, 171.7 cu. yds. $2,353.*

Sect. C, 201.5 cu. yds. Cost $2,900.

Scott Co., Sect. B. bridges, 322.5 cu. yds. Cost $4,540.*

* No material furnished by State.

Clintonville, Wis. — Reported desired until June 7 by Bd. Pub. Wks. (Chas. Folkman, Chmn.) for reinforced concrete pavt., vitr. block and creosoted wood block on various streets.

Milwaukee, Wis.—Until June 7 by H. J. Knelling, Co. Highway Comr., for 28,230 sq. yds. concrete paving.

Wauwatosa, Wis.—Reported desired until June 12 by Bd. Pub. Wks., for grading, curbing and paving with water-bound macadam, portions of various streets.

Marshalltown, Ia.—Until June 15 by J. J. Wilson, City Clk., for 26 blocks of concrete paving and curb; advertised in Engineering Record.

Sheldon, Ia.—Reported desired until June 9 by Scott Martin, City Clk., for about 13,500 sq. yds. paving. Bids desired vitr. brick blocks on concrete base.

Sheldon, Ia.—Until June 9 by Scott Martin, City Clk., for approximately 13,500 sq. yds. paving. Bids desired on vitr. brick block on concrete base, asphaltic concrete on concrete base and Portland cement concrete. K. C. Gaynor, Engr., United Bank Bldg., Sioux City.

Blue Earth, Minn.—Until June 7 by City Clerk, for paving. Bids desired on brick, creosoted blocks, asphaltic concrete, sheet asphalt, concrete, etc. Cost, about $50,000. E. T. Abbott, Engr., Kasota Blk., Minneapolis.

Duluth, Minn.—Reported desired until June 7 by O. Halden, Co. Aud., for approximately 5½ miles of the Heyes Road.

Kansas City, Mo.—Until June 7 by Bd. Pub. Wks. (Edw. F. Webster, Acting Secy.) for paving with Portland cement concrete on portions of Agnes, Belmont, Euclid Aves. and other streets; also same time and place separate bids for paving with asphalt Belleview and Elmwood Aves.

St. Louis, Mo.—Until June 11 by Bd. Pub. Service (Wm. T. Findly, Secy.) for paving with vitr. brick portions of Grand View Pl., Marcus and Berthold Aves. and several other streets.

Clarksville, Tex.—Until June 21 (re-advertisement) by Bd. Aldermen, for street improvements, including 13,531 sq. yds. vertical fibre brick pavt. on concrete base, 1897 sq. yds. concrete pavt., 7230 sq. yds. asphalt macadam pavt., etc., advertised in Engineering Record. E. F. Petersen, Engr., Muskogee, Okla. John Webb, City Clk.

Elma, Wash.—Until June 14 by C. H. Palmer, City Clk., for paving Main, Young and other streets with sheet asphalt, bitulithic or 2 course concrete, about 36,000 sq. yds., on concrete base, with concrete curb; cost $57,000. Engineer, Geo. W. Gauntlett, of Montesano.

Olympia, Wash.—Reported desired until June 21 by Annie Gaston, Co. Aud., for grading and graveling 3½ miles Permanent Highway No. 6, a portion of the Olympic Highway, between Olympia and Shelton. Wm. Yeager, Jr., Co. Engr.

Port Orchard, Wash.—Reported desired until June 14 by County Comrs., Port Orchard, for grading and graveling a mile of road near Harper, known as Permanent Highway No. 2; also a mile of road near Paulsbo, known as Permanent Highway No. 3. S. H. Berry Co., Engr., Port Orchard.

Seattle, Wash.—Until June 21 by Co. Comrs. (Byron Phelps, Clk.), for constructing Bond Road No. 2 known as Woodinville-Duvall Road.

Washington.—Until June 14 by State Highway Comrs., Olympia, for surfacing Inland Empire Highway, North Yakima and Ellensburg; cost $3,000; also grading Pacific Highway, Vancouver and La-Center; cost $29,400.

Portland, Ore.—Until June 9 by Co. Comrs. for improving following roads: Columbia River Highway Sections A to E inclusive; Sandy Road, Sect. A and B; Base Line Road, Sect. A and B; Powell Valley Road, Foster Road, Capitol Highway; Canyon Road, Sect. A and B; St. Helens Road, Sect. A to M inclusive. Bids will be considered on cement concrete No. 1 and No. 2 one course; Cement concrete (Hassam) No. 3; asphaltic concrete (bitulithic) Nos. 1 and 2 crushed stone or concrete base; sheet asphalt, concrete base; wood blocks concrete base; brick, concrete base; stone blocks concrete base; also same time and place separate bids for maintaining certain hard surface roads for the county. Jihn B. Coffey, Co. Clk.

Sandpoint, Idaho.—Reported desired until June 15 for 19,917 yds. paving. Bids desired on Hassam, asphalt, brick, wood block, Spokane bituminous, bitumass, bitulithic and standard bitulithic. Engr.'s estimate of cost, $41,829 for asphalt, the lowest, to $74,928 for wood block the highest. Address Mayor Himes.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Maine**—Contracts awarded by State Highway Comn., Augusta, for state highway work as follows (bids opened May 19):

Scarboro with cement concrete awarded to Hassam Paving Co., Worcester, Mass., at $63,556.

Prospect, awarded to J. H. Young, of Winterport, at $1,763.

Searsport, awarded to Manzie Rogers, Bangor, at $9,718.

★**Concord, N. H.**—Contract awarded by State Highway Comn. for constructing Rockingham Road in Salem to Antonio Pallotto, 117 Crosby St., Lowell, Mass.

★**Boston, Mass.**—Contract awarded to Chas. J. Jacobs Co., 107 Terrace St., for paving Mayhew St. (bids opened by Bd. Pub. Wks. May 21). This company bid for asphalt $7,444 or bitulithic $7,518.

★**Massachusetts.**—Contract awarded by State Highway Comn. Boston, for constructing section of road in Sutton and Uxbridge, to T. A. Moynihan, of South Hamilton, at $13,620. (Bids opened June 1.)

★**Rhode Island**—Contract awarded by State Bd. of Pub. Roads at Providence for reconstructing 4765 ft. State Highway in Warwick, to Amos D. Bridges Sons, of Hazardville, Conn., at $8,444.

Albany, N. Y.—Following are lowest bids opened June 1 by State Highway Comn. at 55 Lancaster St., for repair of highways by State aid:

Repair Contract 778, Albany County, 16.25 miles: John P. Dugan & Co., Amsterdam, $10,062; W. L. Lawton, Glens Falls, $10,499; Gleason & Davitt, Albany, $10,545; M. F. Dollard, Albany, $10,683.

No. 716, Chenango County, 5.21 miles: Nash & Griffin, Norwich, $1,100; John H. Gordon, Albany, $1,106.

No. 693, Chenango County, 8.92 miles: Nash & Griffin, Norwich, $4,485; Connors & Gallivan, Elmira, $4,622.

No. 770, Clinton County, 14.15 miles: Richard Hopkins, Troy, $5,293; Boynton & McNally, Keeseville, $5,888.

No. 750, Cortland County, 13.37 miles: Pathfinder Constr. Co., Inc., Fulton, $3,694; Richard Hopkins, Troy, $3,728.

No. 719, Delaware and Schoharie Counties, 31.82 miles: Paul Gsanger, Monsey, $7,095; Nash & Griffin, Norwich, $7,888.

No. 779, Erie County, 29.03 miles: Fred W. Knickenberg, Buffalo, $12,591; Dale Eng. Co., Inc., Utica, $13,693; John M. Hackett, Dunkirk, $14,517; John W. Landel, Tonawanda, $14,949.

No. 769, Essex County, 15.03 miles: Defiance Corp., Ticonderoga, $6,441; W. L. Lawton, Glens Falls, $6,492; Boynton & McNally, Keeseville, $6,874.

No. 771, Essex County, 15.05 miles: John F. Lewis, Albany, $4,819; Defiance Cor., Ticonderoga, $4,826.

No. 773, Fulton County, 19.90 miles: W. J. Morrissey, Saratoga Springs, $5,828; Clarence Welsh & Co., Gloversville, $6,721; John P. Dugan & Co., Amsterdam, $7,028.

No. 661, Herkimer County, 25.35 miles: John P. Dugan & Co., Amsterdam, $7,433; Harry W. Roberts & Co., Utica, $8,121; De Barber & Hill, Fulton, $8,380.

No. 766, Jefferson and St. Lawrence Counties, 23.18 miles: Rich'd Hopkins, Troy, $9,355; Arthur F. McConville, Ogdensburg, $10,753; De Barber & Hill, Fulton, $10,827.

No. 733, Madison County, 12.90 miles: Nash & Griffin, Norwich, $4,788; De Barber & Hill, Fulton, $4,790.

No. 724, Monroe County, 21.36 miles: Ribstine-Holter Co., Inc., Rochester, $5,630; Dale Eng. Co., Utica, $5,668; Crouch Bros., Rochester, $5,727.

No. 681, Montgomery County, 14.96 miles: Wm. J. Morrissey, Saratoga Springs, $5,009; Chas. Scott, Fort Plain, $5,558; John P. Dugan & Co., Amsterdam, $5,622.

No. 765, Montgomery County, 2.50 miles: John P. Dugan & Co., Amsterdam, $2,533; Clarence Welsh & Co., Gloversville, $2,779.

No. 717, Orange County, 5.94 miles: Schunnemunk Constr. Co., Highland Mills, $2,006; Jas. L. Kehoe, Newburgh, $2,168.

No. 776, Orange County, 3.22 miles: Schunnemunk Constr. Co., Highland Mills, $19,045; Jas. L. Kehoe, Newburgh, $19,783; Blankfield & Donovan, Kingston, $19,789; Port Jervis Constr. Co., Port Jervis, $20,484.

No. 657, Otsego County, 6.19 miles: Schunnemunk Constr. Co., Highland Mills, $6,444; Connors & Gallivan, Elmira, $6,560; Lane Constr. Cor., Meriden, Conn., $6,661.

No. 777, Rensselaer County, 2.34 miles: Gleason & Davitt, Albany, $5,158; Thos. H. Karr, Troy, $5,230.

No. 761, Rensselaer County, 22.99 miles: Paul Gsanger, Monsey, $6,795; The Defiance Cor., Ticonderoga, $7,981; B. Gaffney & Sons, Saratoga Springs, $8,518.

No. 780, St. Lawrence County, 5 miles: Arthur F. McConville, Ogdensburg, $27,410; Flood & Van Wirt Co., Hudson Falls, $28,898; Eggleston & Gathwaite, Yonkers, $30,638; Richd. Hopkins, Troy, $30,863.

No. 715, Saratoga County, 20.59 miles: Paul Gsanger, Monsey, $6,731; W. H. Gailor, Saratoga Springs, $7,091; John P. Dugan & Co., Amsterdam, $7,113.

No. 768, Schenectady County, 18.88 miles: John P. Dugan & Co., Amsterdam, $10,754; J. J. Malloy, Schenectady, $11,740.

No. 764, Steuben County, 4.28 miles: McGreevey, McGuigan & Baum Constr. Co., Elmira, $22,925; Kennedy Constr. Co., Albany, $23,010; John C. Bradley, Corning, $23,471; Connors & Gallivan, Elmira, $25,632.

No. 714, Sullivan County, 3.56 miles: Nash & Griffin, Norwich, $997; D. C. Bonnell, Liberty, $1,048.

No. 772, Warren County, 15.38 miles: Defiance Cor., Ticonderoga, $7,030; Wm. L. Sherrill, Hudson Falls, $7,102.

No. 760, Washington County: John P. Dugan & Co., Amsterdam, $10,082; Richd. Hopkins, Troy, $10,494; Wm. L. Sherrill, Hudson Falls, $10,502; W. L. Lawton, Glens Falls, $10,798.

★**Buffalo, N. Y.**—Contracts for paving awarded by Comrs. Pub. Wks. to German Rock Asphalt & Cement Co., D. S. Morgan Bldg., for Admiral Rd., Deseronto St., Lovering and Virgil Aves.; total cost $99,000.

★Contract for paving with asphalt E. Bennett, W. Bennett Sts. and Hazel Pl. awarded by Francis G. Ward, Comr. Pub. Wks. to Henry P. Burgard Co., 1968 Fillmore Ave., at $22,240.

★**Rochester, N. Y.**—Contract for paving with asphalt Clay Ave. awarded by Bd. Contract & Supply to Warren Bros. Co., Boston, Mass., at $10,352.

★Contract for paving with brick Mohawk St. awarded by Bd. Contract & Supply to F. V. Brotsch, $14,766.

★Contract for paving with asphalt Post Ave., Englewood Terrace, Linden St. awarded by Bd. Contract & Supply to Rochester Vulcanite Pavement Co., Rochester, at $35,801.

★**Rome, N. Y.**—Contract for paving with bitulithic Lawrence St. awarded by Bd. Pub. Wks. to Warren Bros. Co., Boston, Mass., at $24,597.

★**St. Johnsville, N. Y.**—Contract awarded for paving Bridge St. (bids opened May 24) to Jas. E. Martin, of Utica, at $9,984. Other bids: John P. Dugan Co., Amsterdam, $10,982; J. Dimando, Amsterdam, $11,534; Oliver Hurst, Fultonville, $11,564; R. D. Cooper, Little Falls, $11,285. (Mack brick to be used). L. G. Walrath, Village Clk.

★**Washington, Pa.**—Contracts for paving (bids opened May 11 by County Comrs.) have been awarded as follows (Chaney & Armstrong, Co. Engrs.): Washington-Bethany Road, 1 mile with brick, awarded to Reed, Liggett & Britt, Washington, $16,547; Midway-Steubenville Pike Road, 1 mile with concrete, to J. T. Hunter & Co., Washington; Hill Church-Road, 1 mile with brick, to Wm. Pickett & Co., Washington, $12,161, and same company, West Alexander-Dunsfort Road, ½ mile with brick, $6,776; Beallsville-Fredericktown extension, from state road, 1.6 miles, with brick, to Hastings & Piper, Charleroi, $18,435; Taylors Run extension, 1.2 miles, with brick, to Thos. Arrigo, Charleroi, $18,163; Centerville Road, with brick, to Donora Constr. Co., $16,078.

★**Baltimore, Md.**—Contract for resurfacing streets around City Hall with sheet asphalt awarded by Bd. Awards to P. Flanigan & Sons, Baltimore, at $9,327.

Washington, D. C.—Following are 2 lowest bids opened by Comrs. D. C. for about $170,000 worth of asphalt pavements: Warner-Quinlan Asphalt Co., Syracuse, N. Y., at $1.49 per sq. yd. and Cranford Paving Co., Washington, $1.66 per sq. yd.

★**Alexander, La.**—Contract for paving with brick (bids opened May 19) has been awarded to A. R. Young & Co., of Lawrence, Kan., for Bolton Ave., at $58,833 and for Lee St. at $31,268. S. Weil, City Secy.

★**Jackson, Ky.**—Contract for macadamizing streets in Jackson awarded by City Council to John W. Dean, at about $15,000.

★**New Castle, Ky.**—Contract awarded by County Comrs. for constructing macadam pike between New Castle and Eminents to Philips-Post-Guyn Co., Lexington, at about $15,000.

★**Canton, O.**—Contract for paving with brick Market Ave. S. and North Industry Rd. awarded by Bd. Control to Turnbull Bros. & Co., at $42,979.

Cincinnati, O.—Following are bids opened May 13 by Board of Park Comrs. (Wm. Hodgkinson, Secy.) for repaving Bloody Run Parkway: Henkel & Sullivan, Cincinnati, $11,012; Kirchner Constr. Co., Cincinnati, $11,478; Allan Kissinger, Cincinnati, $12,673.

★**Columbus, O.**—Contract awarded by Ohio State University to S. T. Knight, Columbus, for concrete base course asphalt-macadam roadway on 12th Ave. and Page Hall St., at a total of $10,566.

★**Columbus, O.**—Following contracts awarded by Director Bd. Pub. Service for paving following streets: 10th Ave., asphalt, to Andrews Asphalt Paving Co., Hamilton, at $11,000; 20th St. and Grant Ave. with asphalt to Cleveland Trinidad Paving Co., Cleveland, at $29,000 and $11,000 respectively; 4th St. with brick to B. F. Patterson, at $13,000.

★**Fremont, O.**—Contract awarded by Bd. Control for paving with brick W. State St. to Ziegler & Reardon, at $24,000.

★**Jeromeville, O.**—Contract awarded for paving Main St., 11,000 sq. yd. brick pavement, to A. Herring & Son. Rossback & McKee, Engrs., Ft. Wayne.

★**Mansfield, O.**—Contract awarded for improving about 5 miles of road in Jackson and Cass Townships, to F. M. Cary, of Forest, at $27,024. C. L. Bushey, Co. Surveyor.

★**McConnellsville, O.**—J. L. Gotschall, of McConnellsville, is surveying here for the State Highway Dept. on a 2-mile macadam road, one 35 ft. span concrete slab top bridge, and one 80 ft. concrete arch, for which Foster & Son, of Evansville, Ind. have contract.

★**Mt. Gilead, O.**—Contract awarded by County for macadamizing 3½ miles of Marengo Rd. to Harvy Tennant, of Galion, at $19,977. Next 3 lowest bids: W. H. Miller, Carrington, $21,886; D. H. Richardson, Iberia, $22,654; Rinehart & Gledhill, Galion, O., $22,726 (bids opened May 28). C. O. Higgins, Co. Aud.

Salem, O.—Lowest bid recently received for resurfacing and removing car track on McKinley Ave. submitted by Kent Constr. Co., Kent. This company bid for Metropolitan block, $1.07 per sq. yd.; Big 4 block, $1.03; Bess block, $1.04; Alliance block, $1.02; totals being $22,470, $21,630, $21,840, $21,420, respectively.

Springfield, O.—Lowest bid opened by city for paving with asphaltic concrete Cassilly St. submitted by Cleveland Trinidad Paving Co., Cleveland (3 bids), $11,625 to $12,668.

★**Youngstown, O.**—Contract for repaving with Texaco asphalt Madison Ave. awarded by Bd. Control May 20 to Turner & Olson Contsr. Co., Youngstown, at $16,449.

★**Indianapolis, Ind.**—Contract for grading, constructing cement sidewalks on Burdsal Parkway awarded by Bd. Park Comrs. to S. M. Timberlake Co. at $21,335.

★**Syracuse, Ind.**—Contract awarded for paving Main and Huntington Sts. to Northern Constr. Co., Elkhart. Rossback & McKee, Engrs., Ft. Wayne.

★**Vincennes, Ind.**—Contract for paving with asphalt 1st St. awarded by Bd. Wks. to Western Constr. Co., at $25,186.

★**Aurora, Ill.**—Contracts awarded for paving Bway., Fox and New York Sts., to McCarthy Improv, Co., of Davenport, Ia., at $18,759 for the general contract and for Street Ry. section at $7,964. M. J. Tarble, City Engr.

★**Illinois.**—Contracts awarded as follows by State Highway Dept., Springfield, for State Aid road work in Illinois (bids opened May 26):

Calhoun County, Sect. A, macadam, to Rees Bros., Quincy, at $2,000.

St. Clair County, Sect. A, concrete, to H. H. Hall Constr. Co., East St. Louis, Ill., $16,900.

Marshall County, Sect. B, concrete, to Ajax Constr. Co. & Eng. Co., Gary, Ind., $4,395.

Marshall County, Sect. C, bridges, to Capperune & Deyo, Bradford, Ill., $5,972.

Kane County, Sect. B, road and bridges, to W. E. Cummings, Geneva, $2,237.

★**Rock Island, Ill.**—Contract for paving with asphalt 11th St. awarded to McCarthy Improvement Co., Davenport, Ia., at $14,000.

★**Madison, Wis.**—Contract for paving with asphaltic concrete Adams and Winnebago Sts. awarded by City Council to Johnson Constr. Co., at $12,230 and $11,705 respectively.

★**Cedar Rapids, Ia.**—Contract for paving 20 blocks in the residential district with asphaltic concrete, on 4-in. concrete base, has been awarded to Ford Paving Co., Cedar Rapids, at $1.36 per sq. yd.

★**Corydon, Ia.**—Contract awarded for 26,050 sq. yds. on West, Anthony and State Sts. with bitulithic, 21,000 yds. concrete curb and gutter, awarded to Jas. Horrabin & Co., Des Moines, at $64,000; work to begin June 20. Engineer M. G. Hall, Centerville.

★**Dubuque, Ia.**—Contracts for paving with brick Hill St. and with asphaltic concrete Rhomberg Ave., awarded by City Council to Jas. F. Lee, at $1.94 and $1.55 per sq. yd. respectively.

★**Rockwell City, Ia.**—Contract for 80,000 sq. yds. sheet asphaltic pavements and 46,000 ft. curbing awarded by City Council May 17 to Ford Constr. Co., Cedar Rapids, at $1.48 per sq. yd. and 45 cts. per lin. ft., respectively.

★**West Liberty, Ia.**—Contract for paving streets in West Liberty awarded by city to McNamara Constr. Co., Dubuque, at $100,000.

★**St. Paul, Minn.**—Contract for resurfacing with concrete speedway being constructed by Twin City Motor Speedway Asso. awarded to Hanlon & Oakes, Minneapolis, at about $181,000.

★Contract awarded by City Council to Fielding & Shepley, St. Paul, for paving Lexington Ave. from Summit Ave. to Como Park, at $123,900 (bids opened May 24). Creosoted wood block will be used from Summit to University Aves., and asphalt concrete from University Ave. to Como Park.

Council May 27 decided to reject bids for paving Fairview Ave. from Shelby to Marshall Ave., and work will be done by force account.

★**Floresville, Tex.**—Contract for constructing roads throughout Wilson County awarded by Comrs. Court to N. A. Dawson, Austin, at $27,600.

★**Kalama, Wash.**—Contracts awarded by Bd. County Comrs., May 17, for paving as follows: With concrete Permanent Highway No. 2, to Jeffery & Bufton, Portland, at $10,444, and for surfacing with crushed rock Permanent Highway No. 1, to N. P. Willis, Hoquiam, at $10,490.

★**Montesano, Wash.**—Contract for constructing Permanent Highway No. 9 awarded by County Comrs. to Burnett Constr. Co., Burke Bldg., Seattle, at $9,895.

★**Minneapolis, Minn.**—Contract for paving with brick Williamson St. awarded by Bd. Public Wks. to John F. Icke, at $11,984.

★**Oroville, Wash.**—Contract for surfacing 20 blocks awarded by City Council to Silke & La Plant, Colville, at $12,417.

Seattle, Wash.—Lowest bid opened by Bd. Pub. Wks. for paving 14th St. submitted by P. J. McHugh Paving & Constr. Co., 3d Ave. North and Mercer St., at $19,360.

★Contract for constructing Vashon Island Rd. awarded by King County Comrs., to J. T. Mills, Olympia, at $28,539.

★Contract for constructing F. B. Hoit Rd. awarded by Bd. County Comrs. to Otto Strauch, Tacoma, at $10,050.

★**Spokane, Wash.**—Contract for constructing Palouse Permanent Highway No. 12 "A" 11½ miles awarded by County Comrs. to Ambrose-Burdsal Co., Spokane, at $165,000, for Warrenite, with asphaltic macadam shoulders.

★**Tacoma, Wash.**—Contract for paving with bitulithic Permanent Highway No. 6 awarded by County Comrs. May 20 to Washington Paving Co., Savage Schofield Bldg., Tacoma, at $25,260.

★**Washington.**—Contracts awarded by State Highway Dept. at Olympia for State highway work as follows:

Sunset Highway, Rocklyn-Creston, grading, to Mohr Constr. Co., Waterville, at $41,479.30.

Inland Empire Highway, Cashup-Steptoe, grading, to General Constr. Co., Spokane, at $11,955.75.

Inland Empire Highway, Colfax South, grading, to H. L. Wilson Co., Walla Walla, at $19,229.55.

California.—Bids opened May 24 by State Highway Comn., Sacramento, for following highway improvements:

Los Angeles County, Div. 7, Route 4, Sect. A: Lowest bidder: Homer R. Kennedy & Frank Williams, Los Angeles, as follows: 12,200 cu. yds. excav. (ordinary), 40 cts.; 102 lin. ft. 18-in. cor. i. pipe, 50 cts.; 74 lin. ft. 24-in., 75 cts.; 10 lin. ft. 36-in., $1; 95 cu. yds. cement concrete Class B (culverts and monuments), $10; 4120 cu. yds. cement concrete, Class B pavt.), $3.49; 1756 lin. ft. guard rail, 40 cts.; 73 monuments to haul and set, ea., $1; total, $21,101. Next 3 lowest bids: W. A. Dontanville, Paso Robles, $23,918; Geo. Wiegand, Lamanda Park, $24,280; John D. Marsh, Bakersfield, $25,552. Engineer's estimate, $26,894.

Kings County, Div. 6, Route 10, Sect. A: Lowest bidders: Geo. S. Benson & Sons, Los Angeles, as follows: 25,000 cu. yds. excav. (ordinary), 65 cts.; 5000 cu. yds. excav. (borrow), 80 cts.; 530 lin. ft. 12-in. cor. i. pipe, 75 cts.; 488 lin. ft. 18-in., 80 cts.; 60 lin. ft. 24-in., 90 cts.; 30 lin. ft. 30-in., $1; 200 cu. yds. cement concrete Class B (culverts and monuments), $10; 8760 cu. yds. cement concrete Class B (pavt.), $3; 1170 lin. ft. guard rail, 60 cts.; 54 monuments to haul and set, ea., $2; total, $50,212. Next 3 lowest bids: John D. Marsh, Bakersfield, $51,697; W. A. Dontanville, Paso Robles, $54,955; Taylor & Berliner, Los Angeles, $56,809. Engineer's estimate, $51,262.

Tehama County, Div. 2, Route 3, Sect. C: Lowest bidder: H. H. Harlan & T. W. Harlan, Williams, as follows: 83,400 cu. yds. excav. (without classification), 46¼ cts.; 2268 lin. ft. 12-in. cor. i. pipe, 40 cts.; 670 lin. ft. 18-in., 50 cts.; 288 lin. ft. 24-in., 75 cts.; 700 cu. yds. cement concrete Class B (culverts, monuments and slope pav.), $11.64; 120 cu. yds. cement concrete Class C (retaining walls), $12.15; 236 monuments to haul and set, ea., $1.50; total, $49,991. Next 3 lowest bids: Jas. Fitzpatrick, Sacramento, $50,206; Hoffman & McLaren, Oakland, $51,733; Eaton & Smith, San Francisco, $54,987. Engineer's estimate, $43,559.

Tehama County, Div. 2, Route 3, Sect. B: Lowest bidder: Hoffman & McLaren, Oakland, as follows: 23,650 cu. yds. excav. (without classification), 60 cts.; 130 lin. ft. 12-in. cor. iron pipe, 40 cts.; 100 lin. ft. 18-in., 60 cts.; 170 cu. yds. cement concrete Class B (culverts, monuments and slope pav.), $9; 6320 cu. yds. cement concrete Class B (pavt.), $4.25; 3700 lin. ft. guard rail, 25 cts.; 40 monuments to haul and set, ea., $1; total, $43,657. Next 3 lowest bids: Commary Peterson Co., San Francisco, $44,662; Jas. Fitzpatrick, Sacramento, $45,914; L. F. Gerdetz, San Francisco, $46,040. Engineer's estimate, $43,278.

★**Los Angeles, Cal.**—Contract for 114,314 sq. yds. asphalt pavements on Manhattan Pl. awarded by city to Geo. R. Curtis, 552 S. St. Louis St., at $20,190.

★**St. Lamberts, Que.**—Contract awarded for paving (bids opened May 17) to Edw. Belange & Co., 2820 St. Hubert St., Montreal, as follows: 58,000 sq. yds. bitulithic pavt. 2-in. thick laid on 5-in. concrete base, $1.90; chain stone headers, 50 cts. per lin. ft.; concrete curb 6-in. top, 8-in. base, 18-in. deep, laid on 8-in. rubble stone foundation, 70 cts. per lin. ft. E. Drinkwater, Town Engr.

★**Ottawa, Ont.**—Contract for paving Bank St. from Clanston to Spark St. with asphalt and wood block pavement awarded to Ottawa Constr. Co., Central Chambers, Ottawa, at $98,000.

★Contract for paving Willington St., Preston to viaduct, with asphalt, awarded to Union Constr. Co., Bank St. Chambers, at $6,000.

★**New Westminster, B. C.**—Contract for paving one mile on 13th St. awarded by City Council to Columbia Bitulithic Co., New Westminster, at $13,668.

STREET CLEANING AND GARBAGE DISPOSAL

BIDS DESIRED.

Detroit, Mich.—Until June 24 by Dept. Pub. Wks. (Geo. H. Fenkell, Comr.) for erecting reduction plant on north side of Detroit Terminal R.R., between Shoemaker and Harper Aves., advertised in Engineering Record. Smith, Hinchman & Grylls, Archts., Detroit.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Wilmington, Del.**—Contract awarded by Bd. of Health to American Reduction Co., Newark, N. J., to collect garbage, at $68,448.

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS

PROPOSED WORK.

Drain—Buffalo, N. Y.—Aldermanic Com. on Sewers has decided to recommend purchase of land along bed of Scajaquada Creek, so a drain to carry off surface waters can be built. Actual construction of drain will cost about $1,000,000.

Flood Abatement—Buffalo, N. Y.—Governor Whitman has signed the Olean flood abatement bill, which carries an appropriation of $150,000 with the understanding that Olean raise a like amount. Olean Creek and Alleghenny River, are to be deepened and dikes thrown up on either side.

Barge Canal Harbor—Syracuse, N. Y.—The city is reported to have reached an agreement with the New York Central R. R. Co. looking to the construction of a barge canal harbor on Spencer St. site.

Channel Work — Philadelphia, Pa.—Specifications for continuing work of dredging 35 ft. channel in Delaware River, have been completed and forwarded to War Dept., at Washington, for approval, by Col. Geo. A. Zinn, U. S. Engr. Officer, in charge of harbor and river improvement, at Philadelphia. The new work, which is to commence at a point on Bellevue Lighthouse Range, 29 miles below this city and extend down stream about 6 miles, will involve an expenditure of approximately $500,000.

Flood Prevention — Pittsburgh, Pa.—Council Com. on Finance has adopted ordinances for issue of $240,000 bonds for raising Penn Ave. district above flood level.

Sea Wall-Key West, Fla.—A bill has been prepared to be presented to State Legislature permitting County Comrs. to call a bond election authorizing $300,000 bonds to build a break water and seawall extending from foot of Duval St. to head of Island.

Wharves—Cordova, Ala.—It is reported that the St. Louis & San Francisco Railroad Co. will spend $30,000 on wharves and loading facilities along Warrior River at Cordova.

Dams-Natchitoches, La.—Police Jury reported to have voted to erect 2 dams across Cane Rivers.

Ditch Work — Marshall, Minn.—Plans being prepared by O. H. Sterk, City Engr., for ditch work, and some of the work will be ready for letting in July.

Dredging, Etc.—St. Paul, Minn.—See "Railroads."

Hydroelectric Plant — Grand Island, Neb.—The Grand Island Electric Co. has been granted a water power right for a hydroelectric plant on Platte River near Grand Island. W. H. Thompson and F. H. Fritts, of Grand Island, reported interested; cost of plant placed at $55,000.

Docks, Etc.—Beaumont, Tex.—Citizens voted May 25 to issue $100,000 bonds for constructing wharves and docks. A. L. McHarding, Consulting Engr., New York. C. L. Scherer, City Engr.

Irrigation Bonds—Echo, Ore.—Bonds in the sum of $800,000 of the Teel Irrigation Dist. will be sold July 6 by the Bd. of Directors (J. Frank Spinning, Secy.).

Irrigation — Hermiston, Ore.—J. W. Messner, of Hermiston, Pres. Western Land & Irrigation Co., writes with regard to proposed irrigation system that the capacity of the reservoirs will be 14,000 acre-ft. storage, as a supplemental supply of water for present constructed irrigation system; estimated cost of work proposed is $375,000. It is expected that negotiations now pending will result in organization of irrigation, or municipal district comprising 14,000 acres of fertile and partly improved land, and the bonding of such district or municipality for constructing the supplemental storage system; is expected to sell bonds the latter part of this year. Designing engineer, W. B. Hinkle, of Echo, Ore.

Drainage — Salem, Ore.—The Marion County Comrs. reported to have approved organization of G. A. Miller, Drainage Dist. No. 1, to reclaim approximately 200 acres of land in Fairfield Dist. north of city; cost about $10,000.

Dock — St. Johns, Ore.—Council has granted the Star Sand Co. permission to erect a dock between Richmond and John Sts.; it will be 360 ft. long by 150 ft. wide, and cost about $35,000.

Dam—San Bernardino, Cal.—The Tri-Counties Restoration Com. has voted to construct a dam at the mouth of the canyon above East Highland.

Irrigation — Willows, Cal.—John P Ryan, of Willows, is engineer for an irrigation district about to be organized here.

Drainage—Lovelocks, Nev.—Citizens of Lovelock Valley drainage district reported to have voted to issue $43,000 bonds.

BIDS DESIRED.

Repairs to Piers, Boston, Mass.—Until June 12 at Bureau Yards and Docks, Navy Dept., Washington, D. C. (H. R. Stanford, Ch.), for Spec. 2167, Repairs to Pier 5, including pile driving and timber wharf work at Navy Yard, Boston.

Repairing Walls and Breakwater—Block Island, R. I.—Until June 29 by Col. John Millis, Corps, Engrs., U. S. A., Newport, for rebuilding basin walls and repairing breakwater and harbor walls at harbor, at Block Island, advertised, in Engineering Record.

Pier—Brooklyn, N. Y.—Until June 11 (extension of date from June 8) for Contr. 1454—Furnishing material and constructing a pier near foot of 29th St., Boro. Brooklyn. Security required $46,000. Address R. A. C. Smith, Comr. Docks, New York City.

Dredging—New York, N. Y.—Until June 28 at U. S. Engineer Office, Room 707, Army Bldg., for dredging in Newtown Creek, N. Y., advertised in Engineering Record.

Oswego, N. Y.—Until June 23 by U. S. Engineer's Office, Buffalo, for concrete superstructure on outer breakwater at Oswego Harbor, advertised in Engineering Record.

Ferry and Dock Improvement—West Point, N. Y.—Until June 30 by Quartermaster, for reconstruction and repairs to South Dock and Ferry Slip, advertised in Engineering Record.

Levee Enlargement—Vicksburg, Miss.—Until June 26 at office of Third Mississippi River Dist., P. O. Box 404, for constructing about 519,000 cu. yds. levee enlargement, advertised in Engineering Record.

Ditch—Fairmont, Minn.—Reported desired until June 10 by H. C. Nolte, Co. Aud., for constructing Ditches Nos. 27 and 46. Probable cost $7,404 and $9,832.

Ditch—Marshall, Minn.—Reported desired until June 14 by E. S. Shepard, Co. Aud., for constructing County Ditch No. 13. Probable cost $21,928.

Ditch—Slayton, Minn.—Until June 17 by E. V. O'Brien, Co. Aud., for constructing Ditch No. 41, requiring approximately 42,395 ft. 6 to 20-in. tile; total length of ditch, 56,005 ft., average depth, 5.6 ft. Total estimated cost, $17,352; also constructing Ditch No. 8, requiring approximately 20,500 ft. 6 to 15-in. tile. Total length of ditch, 20,900 ft., average depth, 6.80 ft. Total estimated cost, $8,512.

Irrigation—Great Falls, Mont.—Until July 1 by U. S. Reclamation Service, Great Falls, for construction of canals and structures on Sun River irrigation project, involving about 455,000 cu. yds. excav., about 4290 cu. yds. reinforced concrete, manufacture and lay about 4560 lin. ft. of concrete pipe and place in wooden structures about 265 m. ft. lumber. Work situated about 3 miles south of Sloan, Boal and Cordova.

Ditches—Everett, Wash.—Reported desired until June 14 by Co. Comrs. for constructing drainage ditches in Drainage Dist. No. 4, situated in La Grande Marsh, between Snohomish and Monroe.

Breakwater—Petite Riviere, Que.—Reported desired until June 14 by the Dept. Pub. Wks., Ottawa, Ont. (R. C. Desrochers, Secy.), for constructing a breakwater at Petite Riviere.

PRICES AND LETTINGS.

★*Indicates award of contract.*

Dredging—Portland, Me.—Following are 4 lowest bids opened May 25 by Maj. F. A. Pope, Corps Engrs., U. S. A., for dredging Portland Harbor: Coastwise Dredging Co., Norfolk, Va., 7.74 cts.; J. S. Packard Dredging Co., Providence, R. I., 8.5 cts.; John N. Gerrish, Boston, Mass., 9.28 cts.; Morris & Cumings Dredging Co., New York, 9.35 cts.

★**Bulkhead—Philadelphia, Pa.**—Contract reported awarded by John Meigs, Dir. Dept. of Wharves, for wooden bulkheading of Schuylkill River, to Cloud, Stiles & Work, of Chester, at $16.75 per lin. ft. There is $100,000 available for this work.

★**Ditch—Wilmington, N. C.**—Contract awarded by New Hannibal Drainage Dist. No. 1 (E. H. Holmboe, Secy.) for 9 miles ditch, 5 ft. deep, 1½ ft. bottom, requiring 53,000 cu. yds. excav., 4 55-ft. metal culverts (bids opened May 24), to Southern Dredging & Constr. Co., Kinston, N. C., at 23½ cts. per cu. yd. J. L. Becton, Engr., Wilmington.

★**Drainage—Pinellas Park, Fla.**—Contract reported awarded by the Pinellas Park Drainage Dist. to Florida Drainage & Constr. Co., Mulberry, for construction of canal and drainage system, at about $100,000.

★**Dredging — Jeanerette, La.**—Contract reported awarded to Southern Dredging Co., of Mobile, Ala., for dredging Bayou Teche, between Keystone Lock and Jeanerette, at about $25,000.

★**Steel Locks for Dam 29—Cincinnati, O.**—Contract reported awarded by Lieut.-Col. H. Jervey, Corps Engrs., U. S. A., for furnishing and erecting steel lock gates for Dam No. 29, Ohio River, to C. A. Turner, Inc., Pittsburgh, Pa., at $26,314.

★**Retaining Wall—Franklin, O.**—Contract reported awarded by Co. Comrs. at Lebanon for construction of a 700 ft. retaining wall to protect Miami Ave., Franklin, to John K. Spencer, at $18,025.

Breakwater—Marblehead, O.—Two lowest bids opened May 20 by Capt. E. P. Bertholf, Comdt. U. S. Coast Guard, Treas. Dept., Washington, D. C., for constructing a rubble mound breakwater at Marblehead Coast Guard Station, Marblehead, as follows: Lake Shore Contr. Co., Cleveland, $8,100; Coast & Lakes Contr. Cor., 41 Broad St., New York, $8,350.

★**Metal Flumes—Lewiston, Mont.**—Contract awarded for metal flumes for Winnett Irrigation Co. to Hess Flume Co., Denver, Colo., at about $5,000 (bids opened May 10).

River Improvements—Kansas City, Mo.—Following are the bids opened May 20 by Lieut.-Col. Herbert Deakyne, Corps Engrs., U. S. A.:

★4200 lin. ft. standard 3 row timber dyke on Missouri River, about ½ mile below Cement City (price given per ft.): Norton Bros., 3517 Main St., $14.75; J. W. McMurry Contr. Co., 709 Sharp Bldg., $14.25 (awarded contract); Marshall Rust, Bonaventure Hotel, $16.50; Kansas City Bridge Co., Orear Leslie Bldg., $14.90; DeWitt & Shobe, Glasgow, Mo., $14.54.

★Timber dyke on Missouri River near Napoleon (price given per ft. of dike): Norton Bros. & Kennedy, $13.98; J. W. McMurry Contr. Co., $14.95. Kansas City Bridge Co., $14.50; DeWitt & Shobe, Glasgow, Mo., $13.48 (awarded contract). (a) 2250 ft. dike, per ft.; (b) 12,000 ft.

★Missouri River in Euphrase Bend—revetment, per ft.: Norton Bros. & Kennedy, (a) $13.74, (b) $8.23; J. W. McMurry Contr. Co., (a) $14.50, (b) $9; Kansas City Bridge Co., (a) $14.60, (b) $8.60; DeWitt & Shobe, Glasgow, Mo., (awarded contract), (a) $12.95, (b) $8.34; Fruin-Colnon Contr. Co., St. Louis, (a) $14.49, (b) $9.84.

★9000 ft. revetment on Missouri River, 2 miles from Atherton (per lin. ft.); Norton Bros., $12.50; J. W. McMurry Contr. Co., $10.40; Jones & Taylor, Leavenworth, Kan., $9.80; Marshall Rust, $9 (awarded contract); Kansas City Bridge Co., $9.40; DeWitt & Shobe, $10.79.

Dike—Port O'Connor, Tex.—Bids reported opened by U. S. Engineer at Galveston, for construction of two pile dikes at Port O'Connor to John Jacobson, Texas City, $21,426; Wm. Moore, Texas City, $22,405; David M. Pickton Co., Galveston, $23,870; Blodgett Constr. Co., Galveston, $23,934.

★**Drainage Work—Bellingham, Wash.**—Contract awarded by Co. Comrs. for digging, excavating, dredging and constructing main ditch for waterway and 3 laterals in Drainage Dist. No. 7 to Chas. E. Lind, of Bellingham, at $10,644. W. D. Wallace, Co. Aud.

★**Drainage Conduit — Riverside, Cal.**—Contract awarded to Mlagenovich & Gillespie, 3920 Wisconsin St., Los Angeles, for constructing a concrete drainage conduit in portions of Fairmount Boule. and Market St., and reconstructing 12th St. drainage conduit, at following bid: 980 ft. open concrete ditch, $2.50; 2097 ft. 42-in. egg-shape sewer, $4.80; 2042 ft. 30-in., $2.40; 820 ft. 8-ft. concrete arch, $3.40; 467 ft. new culvert bottoms, $1.60; 332 ft. 34-in. concrete pipe, $2.50; 743 ft. 24-in., $1.60; 1185 ft. 20-in., $1.40; 590 ft. 16-in., $1.10; 172 ft. 10-in., 70 cts.; manholes, $50 ea.; and catchbasins, ea. $20, etc.; total $28,381. Other bidders: N. W. McComb, Los Angeles, $28,482; Johnson-Shea Co., Riverside, $31,949.

★**Jetty—New Westminster, B. C.**—Contract for construction of second unit of government jetty being built at mouth of Fraser River, reported awarded to Marsh, Hutton, Powers Contr. Co., New Westminster, at $400,000.

ELECTRIC RAILWAYS

PROPOSED WORK.

Manchester, N. H.—Manchester Traction, Light & Power Co. contemplate constructing substation on Brook St., Manchester, and an auxiliary steam power plant at Kelley's Falls, also placing feed wires underground. J. B. Smith, Gen. Mgr.

Hartford, Conn.—Work will begin at once on Meriden, New Britain & Hartford Ry. between Meriden and Hartford. Danl. J. Donovan, Meriden, is interested.

Middletown, N. Y.—Walkill Transit Co. is considering plans to extend its line to connect with Orange County Traction Co.'s Line at Walden.

Lakewood, N. J.—Trenton, Lakewood & Seacoast Ry. Co. is planning to build a line from Lakewood to Point Pleasant. O. Vanderbilt, Trenton, is interested.

Huntington, Pa.—Plans are being considered to build an electric or steam road between Huntingdon and McAlevys Fort. H. C. Tussey, McAlevys Fort is interested.

Reading, Pa.—Reading Transit Co. plans to spend $180,000 in Reading for track renewal and paving, also $100,000 for improvements in Lebanon and other places.

★**Flood Protection—Rochester, N. Y.**—Following are unit prices of 5 lowest bids opened by city May 19 for Genesee River flood protection, deepening river, from Central Ave. dam to a point about 200 ft. south of Erie Canal Aqueduct: (a) Lathrop, Shea & Henwood Co., Buffalo, $315,200 (awarded contract); (b) R. T. Ford Co., Rochester, $319,200; (c) M. H. Ripton, Rochester, $336,640; (d) T. A. Gillespie Co., Pittsburgh, $342,120; (e) Thos. Holahan, Rochester, $345,000. (Edwin A. Fisher, City Consulting Engr.)

	*(a)	(b)	(c)	(d)	(e)
50,000 cu. yds. earth excav.	$2.20	$1.20	$1.00	$1.72	$2.00
90,000 cu. yds. rock excav.	2.20	1.90	2.25	2.18	2.25
20,000 cu. yds. rock excav. under bridges and Erie Canal Aqueduct and in 20 ft. of piers	2.20	2.75	2.50	2.30	2.50
40,000 sq. ft. channeling	.40	.50	.60	.43	.60
2,000 cu. yds. concrete facing of channel and elsewhere	10.00	8.00	10.00	9.20	10.00
2,000 lbs. steel reinforcement	.10	.10	.07	.06	.10
Cofferdam, bail and drain, for work complete (lump sum)	15,000.00	45,000.00	30,000.00	47,000.00	28,300.00

Brooklyn, N. Y.—Following are bids opened May 28 by Public Service Comn., 154 Nassau St., New York, for construction and station finish of 4th Ave. subway, Brooklyn, a part of Bway.-4th Ave. Rapid Transit R.R. from center of Flatbush Ave. extension to a point on 4th Ave. about 150 ft. south of 42d St.: (a) D. C. Serber, 1123 Bway., New York, $40,676; (b) Station Constr. Co., 407 45th St., Brooklyn, $40,695; (c) Simon Russek, Inc., 261 Bway., New York, $41,251; Chas. Meads & Co., 38 Park Row, New York, $42,219; C. L. Dooley, Inc., $43,117; The Marble Arch Co., 216th St. and Bway., $42,199. (Not yet awarded.)

Unit prices of (a), (b) and c:

Item.			(a)	(b)	(c)
6	300	cu. yds. concrete	$9.00	$7.00	$13.00
9	11	cu. yds. common brick masonry	15.00	27.00	15.00
9D	200	cu. yds. removal of old masonry	10.00	10.00	13.00
10	1	cu. yd. hollow tile masonry	15.00	32.00	15.00
11A	16	sq. yds. resurfacing concrete masonry	.50	2.00	1.00
18	43,000	duct ft. tunnel ducts	.12	.11	.10
19	15	tons riveted steel	80.00	90.00	90.00
20	5	tons steel beams and shapes	80.00	75.00	80.00
21	5	tons steel rods and bars	80.00	60.00	60.00
26	100	lbs. special wire forms	.10	.10	.12
27B	1,075	lin. ft. hand rail	.60	.40	1.00
501	1,080	sq. ft. tile—3 x 6" (a) straight	.48	.60	.45
	45	sq. ft. (c) 2½" radius	1.32	1.23	1.15
504	4,065	sq. ft. tile—3 x 9" and 6 x 9" (a) straight	.77	.80	.70
	25	sq. ft. (c) 2½" radius	1.65	1.30	1.29
509	30	lin. ft. tile bead (b) 2" radius	.44	1.20	.50
512	4,300	sq. ft. special tile (a) white mosaic tile	.45	.72	.50
513	1,300	sq. ft. mosaic and tile bands	1.20	1.50	.80
514	50	sq. ft. name tablets	1.20	1.50	1.00
520	1	lintel (x) resetting lintel	20.00	15.00	30.00
521	700	sq. yds. plastering arch sur. (d) on brick and hollow tile	1.05	1.60	.70
	680	sq. yds (e) on concrete	.90	1.44	.70
522	470	sq. yds. plastering flat sur. (d) on brick and hollow tile	.95	1.44	.70
	45	sq. yds. (e) on concrete	.70	1.38	.70
523	3,425	sq. ft. cement work (a) wainscot or base	.12	.12	.12
	175	lin. ft. (b) cove	.12	.11	.12
	1,450	sq. ft. (c) floor finish	.16	.15	.15
526	25	lin. ft. concrete stairs (a) self supporting	.85	1.60	1.20
	10	sq. ft. concrete landings (b) self supporting	.50	.65	.60
	30	sq. ft. non-slip treads (f)	1.00	.75	1.00
	100	lin. ft. cement inside of stairs (h)	.12	.12	.40
	2,000	sq. ft. replacing non-slip treads (f)	.70	.70	.80
530	2	ticket booths (o) Type "P," each	750.00	800.00	740.00
	8	(p) Type "Q," each	750.00	800.00	750.00
532	3	doors (d) Type "D," each	73.00	81.00	85.00
	3	doors (m) Type "M," each	73.00	65.00	65.00
	3	doors, toilet stalls, single (p) each	50.00	53.00	45.00
	1	resetting door (q)	14.00	15.00	14.00
533	190	sq. ft. windows (a) double hung	2.85	2.70	2.50
	75	sq. ft. (g) hinged	2.80	2.70	3.00
534	6	additional hardware (b) door stops (each)	2.35	2.25	2.50
	2	(c) chains (each)	1.25	1.25	1.50
536	70	lin. ft. railings (g) pipe	1.65	1.80	2.00
	32	lin. ft. (h) guard at street	3.30	2.40	3.50
Remove existing and install new railing (x) (lump sum)			770.00	150.00	150.00
537	48	lin. ft. gates, posts, etc. (a) low slide gates	11.00	9.00	11.00
	10	(h) add. floor boxes (each)	5.00	3.60	6.00
	75	lin. ft. (l) 1¼-in. galv. w.-i. pipe	1.10	.25	1.10
	10	lin. ft. (m) 1-in. square steel tubing for ropes	1.70	.60	1.50
	10	lbs. (n) c.-i. fittings	.50	.25	.50
	8	(p) c.-i. gate posts (pair)	85.00	56.00	80.00
	6	(g) add. high posts (each)	14.00	6.00	14.00
540	18	lin. ft. sign posts, frames, etc. (f) reflectors	2.00	2.00	1.50
	25	sq. ft. (g) enam. sign plates	1.00	1.15	1.40
	25	vert. in. (h) copper letters	.20	.12	.40
	100	sq. ft. (i) pol. plate w. glass	.75	.90	1.00
	32	(j) old lamps on posts (each)	3.00	1.80	6.00
543	45	lin. ft. steel ladders, etc. (a) tread	2.20	2.25	3.00
	30	sq. ft. (b) platforms	1.10	2.25	2.00
	36	ladders, track to platf. (g) (each)	6.00	11.50	10.00
544	40	lin. ft. oak hand rail (a) new hand rail	1.00	.60	1.00
	300	lin. ft. (b) place old hand rail	.50	.20	.40
546	200	sq. ft. platform edge (a) safety tread	.75	1.40	.80
547		rough plumbing (b) (lump sum)	1,320.00	700.00	900.00
548	1	plumbing fixtures (a) w. c. bowls (each)	60.00	65.00	60.00
	3	(c) lavatories (each)	50.00	47.00	45.00
	2	(i) marine w. c. bowls (each)	110.00	125.00	110.00
550	10	sq. ft. soapstone part., etc. (h) pipe chamber part.	.75	1.00	1.50
	10	sq. ft. (i) shelves	.75	1.00	1.50
	90	sq. ft. (j) stall part	.85	1.00	1.50
552	700	lbs. steel angles, plates, etc.	.05	.07	.10
554	300	lin. ft. electric conduit (a) ¾ in.	.30	.21	.30
	150	lin. ft. (b) 1 in.	.40	.28	.40
	125	lin. ft. (g) ¾ in. flex. conduit	.30	.25	.60
	40	(h) 2½ in. g. w.-i. ferrules (each)	.50	.50	.60
556	30	c.-i. pull boxes (a) 6 x 6 x 6 in. (each)	5.50	1.50	3.00
560		asbestos lumber box (l) (lump sum)	100.00	150.00	150.00
561	3,000	painting iron, steel, etc. (d) letters and number (each)	.20	.15	.12
Existing steel, etc. (e) (lump sum)			1,500.00	970.00	2,500.00

Greenwood, S. C.—Preliminary surveys have been made and right of way secured for 60-mile railway to be constructed between Greenwood and North Augusta by Savanna, Piedmont & Western R. R. Co. S. H. McGhee, Greenwood, and J. Peyton Clark, New York, N. Y., is interested.

Greenville, Tenn.—Plans are being considered by Carolina, Greenville & Northern R. R. Co. to extend line from Kingsport to Bristol 25 miles and from Newport to Knoxville 40 miles. H. S. Reed, 205 Grant Bldg., Los Angeles, Cal., Pres.

Custaloga, O.—Plans are being considered to build an electric railway from Custaloga to Big Prairie, 1½ miles. John C. Lake, Big Prairie, is interested.

Murphysboro, Ill.—Plans are being made by Murphysboro & Southern Illinois Ry. Co. to begin at once construction of 8-mile line between Murphysboro and Carbondale. A. B. Minton, Murphysboro, Pres.

St. Louis, Mo.—Plans are being made by Southern Traction Co. to resume construction of line across municipal bridge. The company proposes to operate an electric railway through coal fields of Illinois to Du Quoin.

Portland, Ore.—Portland, Eugene & Eastern Ry. Co. plans to spend $15,000 on improvements to line.

Suisun, Cal.—Negotiations are pending between Northern Electric Ry. Co. (W. A. McGovern, Gen. Mgr., Sacramento) and Oakland, Antioch & Eastern Ry. Co. for construction of branch line from Suisun to main line of Oakland, Antioch & Eastern Ry. at point directly opposite Suisun. Length proposed line 7 miles.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Brooklyn, N. Y.**—Contract awarded by Pub. Service Comn. for construction of Sect. 2 of Route 49, a part of the Culver Rapid Transit Railroad in Brooklyn, to Oscar Daniels Co., Woolworth Bldg., New York, at $863,775. For unit prices see Engineering Record of May 29.

Four lowest bids opened May 28 by Public Service Comn., 154 Nassau St., New York, for construction and station finish of the 4th Ave. subway, Brooklyn, a part of the Bway.-4th Ave. Rapid Transit R.R. from center of Flatbush Ave. extension to a point on 4th Ave., about 150 ft. south of 42d St. D. C. Serber, 1123 Bway., New York, $40,389; Station Constr. Co., 407 45th St., Brooklyn, $40,690; Simon Russek, Inc., 261 Bway., New York, $41,361; Marble Arch Co., 216th St. and Bway., New York, $42,000.

RAILROADS

PROPOSED WORK.

Barbourville, Ky.—The Cumberland & Manchester R.R. Co. chartered to build a line from Barbourville to Manchester, a distance of 23 miles, and expects to let contract about June 15. Total yardage will not exceed 300,000 cu. yds.; trestle timbers about 500 M ft.; will use corrugated pipe for culverts and wood box; no concrete work or steel work; weight of rails 70 lbs. and first class ties and ballast. Address, M. E. S. Posey, Ch. Engr., Barbourville.

Cincinnati, O.—Directors of the Chesapeake & Ohio Ry. reported to have signed a track agreement with the Norfolk & Western Ry. covering 60 miles of track between Waverly and Columbus, O. The connecting link will be 30 miles long, running from a point just across the Ohio River, from Portsmouth, O., to Waverly. The project includes construction of a bridge across the river. About $4,500,000 will be expended in construction of new line, which includes stations and terminals.

Portsmouth, O.—It is reported that the Chesapeake & Ohio R.R. Co. will lay a third track between Huntington and Russell, and the Guyan Valley division will be double tracked within the next year.

Indianapolis, Ind.—Bonds in the sum of $100,000 reported sold to be used for track elevation work.

Siloam Springs, Mo.—Surveys about to be started for construction of railroad to connect Siloam Springs with Pomona or Olden on the Frisco railroad. It is planned later to extend the line from Siloam Springs to Bakersfield and Gainesville. B. J. Boyce, of Norton, Kan., is one of the promoters.

BIDS DESIRED.

Philadelphia, Pa.—Until June 11 by A. C. Shand, Ch. Engr., Pennsylvania R. R., Room 607 Broad St. Station, for Contract No. 4, furnishing and delivering rail and track appliances and Contract 5 special girder rail layouts for South Philadelphia Track Elevation.

Alaska—Reported desired until June 10 by the Alaskan Engineering Comn., L. C. Smith Bldg., Seattle, Wash. (C. E. Dole, Purchasing Agt.), for supplying 880 tons steel rails, 3200 pairs angle irons, 13,000 bolts and 106,000 spikes, to be used in the construction of the Government Railroad in Alaska.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Lula, Ga.**—Contract for constructing and equipping Lula-Homer Railroad (D. G. Ziegler, Ch. Engr., Lula) has been awarded to Wm. J. Redmond, of Atlanta.

PUBLIC BUILDINGS AND SCHOOLS

PROPOSED WORK.

Manchester, N. H.—Clerk Br. School Com. writes it is proposed to erect a high school, but nothing definite has yet been done.

Boston, Mass.—Plans prepared by Wm. Welles Bosworth, 527 5th Ave., New York, for the Walker Memorial building to be erected at Massachusetts Inst. of Technology as a club house for the students; cost about $100,000.

Chicopee, Mass.—Plans being prepared for a parochial school to be erected on Front St. for St. Stanislaus R. C. Church; cost $65,000.

Springfield, Mass.—Permit issued for erecting the Third Natl. Bank, a 10-story bank and office building, at Main St. and Harrison Ave., which is to cost $500,000. Hoggson Bros., 7 E. 44th St., New York, Contractors; Starrett & Van Vleck, Archts., Everett Bldg., New York.

Providence, R. I.—Plans being prepared by John F. O'Malley, 75 Westminster St., for a brick school 100 x 150 ft., to be erected for St. Anthony R. C. Church. Rev. Geo. W. Brown, Rector.

Warren, R. I.—Plans being prepared by B. S. D. Martin, 86 Weybosset St., Providence, for an 8-room brick school.

Brooklyn, N. Y.—Plans completed by Edw. M. Adelsohn, 1776 Pitkin Ave., for 5-story fireproof brick and stone Brownsville and East New York Hospital, to be erected at Rockaway Parkway and Ave. A; cost $100,000.

Dannemora, N. Y.—Governor has signed bill appropriating $75,000 for erecting tuberculosis ward at prison here.

Syracuse, N. Y.—Plans approved by Bd. Educ. for the Delaware School and also for the gymnasium for the Blodgett Vocational High School.

Atco, N. J.—Plans being prepared by Clyde S. Adams, Philadelphia, Pa., for a 2-story and basement brick school. Address Bd. Educ.

Paulsboro, N. J.—Plans being prepared by Clyde S. Adams, Philadelphia, for a 2-story and basement stone school costing $35,000. Address Bd. Educ.

Morristown, N. J.—Plans completed by Francis G. Hasselmann, 18 E. 42d St., New York, for the all Souls Hospital, which is to cost $100,000.

Bridgewater, Pa.—Plans being prepared for a 10-room school. Address Bd. Educ.

Harrisburg, Pa.—Plans prepared for the 10th Ward School have been approved by City Planning Com.; cost $90,000.

Lancaster, Pa.—It is proposed to erect a boys' high school, but nothing definite will be done until the fall.

Natrona, Pa. — Harrison Township School Bd. has selected W. G. Eckles, of New Castle, to prepare plans for the $45,000 school.

Wheeling, W. Va.—Plans desired until June 14 by Frank Stanton, Clk. Bd. Educ., for a 2-story fireproof school; cost, including equipment, not to exceed $100,000; advertised in Engineering Record.

Chapel Hill, N. C.—Citizens voted $35,000 bonds to erect a graded school.

Columbia, S. C.—Plans being prepared by E. S. Dreher, of Columbia, and J. M. Hawley, of Blythewood, for 2 brick and stone schools, for which $250,000 bonds have been sold. O. D. Seay, Supt. Bd. Educ.

Orangeburg, S. C. — Citizens voted $30,000 bonds to erect a high school.

Huntville, Ala.—Plans completed by L. M. Weathers, Memphis, Tenn., for a $30,000 high school.

Nashville, Tenn.—House of Representatives has passed bill appropriating $50,000 for a tuberculosis hospital to be erected in East Tennessee by the State.

Henderson, Ky.—City Council appropriated $25,000 for erecting City Hospital.

Agosta, O.—Citizens voted $28,000 bonds for a new school.

Akron, O.—Plans for $165,000 armory to be erected on S. Bway. have been submitted to State Armory Bd. for approval.

Avondale (P. O. Cincinnati), O.—New plans prepared by Jos. G. Steinkamp & Bro., Cincinnati, for a gymnasium building for St. Xavier College, at Bloody Run Boule., Avondale, to cost $100,000.

Camden, O.—Plans of E. R. Thompson, of Youngstown, selected for the centralized school; cost $60,000.

Cincinnati, O.—The sum of $250,000 has been given to Ohio Miami Medical College of the Univ. of Cincinnati for erecting a building.

Bd. Educ. approved plans of Garber & Woodward, Andrews Bldg., for the Walnut Hills-Hyde Park High School, to cost $800,000.

Oberlin, O.—C. F. Doolittle, Secy. Oberlin College, writes all bids have been rejected for erecting art building, 1-story, 100 x 100 ft. Plans will be modified.

Shawnee, O.—Citizens voted $25,000 bond for erecting a school.

Brazil, Ind.—City Council considering plans submitted for the new city hall; cost $30,000.

Portland, Ind.—Frank Gillespie, Clk. Co. Comrs., writes that contract will probably be let in Dec. or Jan. for the proposed court house, for which plans are being prepared by Huisner & McLaughin, of Lima, O. Cost, $250,000.

Detroit, Mich.—Permit issued for 4-story brick and steel school building to be erected by Univ. of Detroit at Jefferson Ave. and St. Antoine St., at a cost of $150,000.

Grand Rapids, Mich. — F. P. Allen, Houseman Bldg., has submitted plans for the proposed brick county infirmary to cost $25,000. Address Bd. Superv.

Montello, Wis.—Co. Bd. appropriated $40,000 for erecting court house and county office building.

Ames, Ia.—Among the buildings contemplated at Iowa State College are dormitory for women, science building, hospital and home economics cottage.

Attica, Ia.—Citizens voted $25,000 school bonds.

Jefferson, Ia.—Citizens voted $150,000 bonds to erect a court house.

Pisgah, Ia.—Citizens voted $30,000 bonds for new school.

Renwick, Ia.—Citizens voted $32,000 for erecting school. Address School Bd.

Rock Rapids, Ia.—Plans prepared by Jos. Schwartz, of Sioux Falls, for the 3-story court house approved by Bd. Superv.

Little Falls, Minn.—Plans about completed by Alden & Harris, St. Paul, for the 3-story, 42 x 100 ft. hospital which Franciscan Sisters will erect; cost $50,000.

Minneapolis, Minn.—Citizens voted May 25 to issue $42,000 bonds for erecting Junior high school. E. L. Chapin, Clk. Bd. Educ.

Atchison, Kan.—A gymnasium costing $35,000 is to be erected at Midland College.

St. Joseph, Mo.—Plans being prepared by Trunk & Gordon, Donnell Court Bldg., for erection of a grade school, to cost $80,000. A. J. Loving, Secy. Bd. Educ.

Wynne, Ark.—Citizens voted to erect a high school.

Billings, Mont.—Tentative plans for an addition to local hospital approved by Sisters of Charity; cost $85,000.

Billings, Mont.—Bd. Trus. of St. Vincent Hospital intends erecting an $85,000 addition.

Clinton, Okla.—Citizens voted $35,000 bonds to erect school.

Estes Park, Colo. — Citizens voted $25,000 bonds to erect a school.

Spokane, Wash.—Reported Franciscan Order of Nuns having plans prepared for a monastery on Dakota St., to cost $75,000.

Vancouver, Wash.—State Bd. Control, Olympia, has selected D. Nichold, of Vancouver, Wash., and Julius Zittel, of Spokane, to prepare plans for the School for the Blind to be erected at Vancouver; cost $75,000.

Walla Walla, Wash.—Co. Comrs., according to reports, rejected all bids opened recently for erecting the court house.

Portland, Ore.—School Bd. approved plans and authorized bids received for the Franklin High School to be erected on E. 52d St. and Division St; cost $100,000.

Los Angeles, Cal.—Plans of Hunt & Burns for the intermediate school to be erected on First St. and Vermont Ave., approved by Bd. Educ.; also the plans of Jos. De Remer for school at 5th and San Pedro Sts.

Sacramento, Cal.—Governor has signed a bill appropriating $30,000 for constructing a woman's building at Agricultural Park.

Stockton, Cal.—Governor has signed bill appropriating $25,000 for an armory in Stockton.

Douglas, Ariz.—Plans being prepared by Lescher & Kibbey, Phoenix, for 2 grade schools, to cost $35,000 each.

Duncan, Ariz.—Plans being prepared by Lescher & Kibbey, Phoenix, for 2-story high school; cost $30,000.

Florence, Ariz.—Plans being prepared by Lescher & Kibbey, Phoenix, for a high school; cost $50,000.

BIDS DESIRED.

Westfield, Mass.—Until June 12 by Trustees, Hospital for Consumptives, 3 Joy St., Boston, for erecting a school on the grounds of the Westfield State Sanatorium, Westfield. E. C. & G. C. Gardner, Archts., 33 Lyman St., Springfield.

Albany, N. Y.—Until June 7 by Isidore Wachsman, Secy. Bd. Contract & Supply, for erecting a police stable annex and garage at Sheridan Ave. and North Hawk St., including heating, plumbing, etc.

Until June 15 by Trus. Pub. Bldgs. Capitol, Albany, for constructing greenhouses for the N. Y. State Executive Mansion, Albany. Lewis F. Pilcher, State Archt., Capitol, Albany.

Blackwells Island, N. Y.—Until June 9 by Dept. Pub. Charities, New York City (John A. Kingsbury, Comr.), for alterations and completion of central dome for new operating suite City Hospital, Blackwells Island (exclusive of plumbing, heating and ventilating); also plumbing, water supply and gas fitting, ventilation and heating. Security $20,000 and $1,800, respectively. Chas. B. Myers, Archt., 1 Union Sq. W., New York City.

Brooklyn, N. Y.—Until June 26 at Bureau Yards and Docks, Navy Dept., Washington, D. C. (H. R. Stanford, Ch.), for erecting 3 1-story brick buildings, 24 x 72 ft., with wings, for contagious diseases, at the Naval Hospital Reservation, Navy Yard, Brooklyn.

Oswego, N. Y.—Until June 15 by Capt. E. P. Bertholf, Comdt. U. S. Coast Guard, Treas. Dept., Washington, D. C., for constructing a coast guard station and accessories and moving present building at Oswego, advertised in Engineering Record.

Collingswood, N. J.—Reported desired until June 8 for erecting high school; cost $40,000. Clyde S. Adams, Archt., Philadelphia, Pa.

Jersey City, N. J.—Reported bids soon to be asked by Bd. Educ. for erecting School No. 16 on Washington and Sussex Sts.

Until June 10 by City Comrs. for erecting laboratory building on Summit Ave.

Fairchance, Pa.—Until June 10 by School Bd. (Owen R. Brownfield, Secy.) at office of John H. Harman, Archt., 632 First Natl. Bank Bldg., Uniontown, for erecting a 2-story brick high school.

Sugar Notch, Pa.—Until June 7 by Boro. School Dist. (John Tenner, Secy.) for furnishing material and erecting a brick school; also separately for heating, ventilating, plumbing, electrical work, etc. Jas. A. Boyle, Archt., Bennett Bldg., Wilkesbarre.

Baltimore, Md.—Until June 9 by Bd. Awards (John Hubert, Acting Pres.) for erecting School No. 101-111, at Caroline and Jefferson Sts.

Charleston, W. Va.—Until June 29 by State Bd. Control, Charleston (J. S. Lakin, Pres.), to furnish material and complete the following buildings (H. Rus Farne, Archt., Charleston):

West Virginia University, Morgantown—Addition to mechanical hall, 141 x 44 ft.; one wing 67 x 44 ft. and a wing 55 x 43 ft.; slow burning construction, 3 stories, brick and terra cotta, slate and composition roof; also building for School of Medicine—75 x 55 ft., brick walls, 3 stories, wood joist construction and composition roof.

Glenville, State Normal School, Glenville—Dormitory building, 169 x 50 ft., 3 stories and basement, brick and stone, slate roof, ordinary construction.

Marshall College, Huntington—Building for Science Hall, 143 x 79 ft., brick and terra cotta, 3 stories, first floor reinforced concrete with composition top finish, 2d and 3d floors joist construction, composition roof.

Albany, Ga.—Reported bids desired by Mayor for erecting the $40,000 high school. J. J. Baldwin, of Anderson, S. C., Archt.

Decatur, Ga.—Until June 10 by J. Howell Green, Pres. Bd. Educ., at office of Mayor, for erecting a graded school, including heating. Edwards & Sayward, Archts., 633 Candler Bldg., Atlanta.

Opelika, Ala.—Until July 14 by Jas. A. Wetmore, Acting Superv. Archt., Washington, D. C., for constructing complete (including mechanical equipment (except elevator) lighting fixtures and approaches) U. S. Post Office and Courthouse at Opelika.

Bastrop, La.—Until June 8 by Parish Bd. School Dirs., for erecting a 2-story brick school. W. L. Stevens, Archt., London, Liverpool & Globe Bldg., New Orleans.

Amory, Miss.—Until June 8 by H. L. Tschudi, City Clk., for erecting a brick high school. B. Price, Archt., Empire Bldg., Birmingham, Ala.

Barberton, O.—Until June 14 by Bd. Educ., Norton Township, Barberton (Roger Miller, Clk., 220 2d St.), for erecting a high school, including plumbing, heating and electric wiring. Harpster & Bliss, Archts., Akron.

Beverly, O.—Until June 23 by Bd. Educ., Waterford Township (Jas. P. Shoop, Clk.), for furnishing material and erecting a school. Harry C. Meyer, Archt., Zanesville.

Cleveland, O.—Reported desired until about June 15 for erecting 4-story brick, steel and concrete addition to St. Alexis Hospital at Bway. and McBride Ave. Cost $100,000. W. C. Jansen, Archt., O'Brien Bldg., Cleveland.

Until June 25 by Public Library Bd. (Carl Lorenz, Secy.) for erecting a library on Superior Ave. and 79th St., including heating, plumbing, etc. Wm. Robt. Powell, Archt., 1106 Hippodrome Bldg.

Freedom, O.—Until June 12 by M. E. Parker, Clk. Bd. Educ., Freedom Township, Freedom, for furnishing material and erecting a 6-room brick school. C. F. Owsley, Archt., Mahoning Bank Bldg., Youngstown.

Ostrander, O.—Until June 7 by Boards of Educ., Village of Ostrander and Scioto Township (Odell Liggett, Clk., Ostrander), for erecting high school and remodeling present grade building. Chas. L. Inscho, Archt., Brunson Bldg., Columbus.

Radnor, O.—Until June 26 by Bd. Educ. (T. K. Jones, Clk.) to furnish material and erect a centralized Township high school. Wm. R. Powell, Archt., Hippodrome Bldg., Cleveland.

Toledo, O.—Until June 25 by Bd. Educ. to furnish material and making alterations and additions to Ironville School, Millard and Tiffin Aves. Geo. L. McKesson, Dir. Schools.

Brownsburg, Ind.—Reported desired until June 18 by Bd. School Trus. (Horatio Brown, Trustee) for erecting a 2-story and basement high school. Probable cost, $30,000. G. W. Gordon, Archt., Park Ave., Indianapolis.

Columbus, Ind.—Reported desired until June 8 by Bd. School Trus. for erecting a reinforced concrete and brick vocational school in rear of present Central High School, including heating, plumbing, etc. Marshall E. Van Arman, Archt., 624 State Life Bldg., Indianapolis.

Chicago, Ill.—Until June 10 by John McGillen, Clk. Sanitary Dist. of Chicago, for erecting a concrete and brick building to be known as Mohawk St. electrical substation.

Beardstown, Ill.—Until July 9 by Jas. A. Wetmore, Acting Superv. Archt., Washington, D. C., for construction, complete (including mechanical equipment, lighting fixtures and approaches), for U. S. Post Office, Beardstown.

Cornell, Wis.—Until June 12 by J. H. Beck, Clk. School Bd., for erecting a school for Joint Dist. No. 2, Village of Cornell and town of Holcombe, Alban & Lockhart, Archts., 347 Endicott Bldg., St. Paul, Minn.

Armstrong, Ia.—Until June 14 by Wm. Stuart, Pres. School Bd., for erecting, including heating and plumbing, a school. Alban & Lockhart, Archts., Endicott Bldg., St. Paul, Minn.

Des Moines, Ia.—Until July 8 by Jas. A. Wetmore, Acting Superv. Archt., Washington, D. C., for repairing, remodeling, etc., U. S. Post Office and Courthouse Des Moines.

Mondamin, Ia.—Reported desired until June 7 by Chas. Billis, Archt., 805 Omaha Natl. Bank Bldg., Omaha, Neb., for erecting a 2-story and basement high school. A. D. Gilmore, Pres. Bd. Educ.

Clay Center, Kan.—Until June 7 by Bd. Educ. for furnishing material and erecting McKinley School, including ventilation, heating and plumbing. J. H. Felt & Co., Archts., Kansas City, Mo.

Winfield, Kan.—Reported desired until June 7 for erecting a 4-story, 32 x 175 ft., stone and concrete, superstructure for St. John's College (A. E. Meyers, Pres.). Wm. Mampe, Archt., Beacon Bldg., Wichita.

Stratton, Neb.—Reported desired until June 11 by S. M. Trimmer, Secy. School Bd., for erecting a 2-story and basement brick school. J. H. Christianson, Archt., Benkelman.

Ellendale, N. D.—Until June 11 (extension of date) by B. R. Crabtree, Clk. Independent School Dist., for erecting a 2-story and basement brick and reinforced concrete school, including complete mechanical equipment. Gilbert R. Horton, Archt., Citizens' National Bank Bldg., Jamestown.

Woodworth, N. D.—Reported desired until June 16 by D. Garfield Wilson, Clk. Strong School Dist. No. 30, for erecting a 2-story and basement brick school, including ventilating and heating. Gilbert R. Horton, Archt., Citizens' Natl. Bank Bldg., Jamestown.

Warrensburg, Mo.—Until June 8 by N. M. Brady, Secy. Bd. Regents, Missouri State Normal School, Warrensburg, for remodeling and rebuilding training school; also separately for heating, plumbing and electric wiring. Smith, Rea & Lovitt, Archts., Finance Bldg., Kansas City.

Ft. Morgan, Colo.—Reported desired until June 7 by Bd. Educ for erecting 2½-story addition to school; cost $30,000. Wm. Redding & Son, 503 Opera House Bldg., Denver.

Seattle, Wash.—Reported bids desired about Aug. 1 by Bebb & Gould, Archts., Denny Bldg., for erecting Home Economics Building at Univ. of Washington; cost $150,000.

Hyde Park, Cal.—Until June 18 by L. Wilhelm, Clk. Hyde Park School Dist. for erecting a group of connected grade school buildings at 4th Ave. and 53d St. Thos. Franklin Power, Archt., 424 Higgins Bldg., Los Angeles.

Los Angeles, Cal.—Until June 10 plans will be received by Bd. Educ. (Wm. A. Sheldon, Secy.) for the following schools: Addition to 7th Ave. school, 4 rooms and auditorium; addition to Hobart Boule. School, 4 rooms and auditorium; school on Lincoln High School site, consisting of auditorium, music hall and library; 6-room and auditorium school on Barton Hill School site; 8-room school and auditorium on Annandale School site.

Los Angeles, Cal.—Until June 10 by Bd. Educ. (Wm. A. Sheldon, Secy.) for erecting intermediate school on First St. and Vermont Ave.

Madera, Cal.—Reported desired until June 15 by Bd. Trus. Madera Union High School Dist. (G. W. Raburn, Clk.) for erecting a manual training and domestic science building.

San Francisco, Cal.—Until July 7 by Supervising Archt., Washington, D. C., for completion of the 2d story (including mechanical equipment) of the U. S. Subtreasury at San Francisco.

PRICES AND LETTINGS.

★*Indicates award of contract.*

Chicopee, Mass.—Following are four lowest bids opened May 24 by School Com. for general construction of addition to high school: J. J. Page & Son, $55,740; A. D. McCormick, $56,633; Saraubbi Constr. Co., $57,000; John J. O'Neil & Co., $57,740.

★Contracts for heating and plumbing above addition have been awarded as follows: Holyoke Supply Co., heating, $8,965; plumbing, J. J. Cotter, $4,990.

★**Nahant, Mass.**—Contract awarded by Elmer Smith Bailey, Archt., 33 Cornhill St., Boston, to S. F. Cooper & Co., Paddock Bldg., Boston, to erect J. T. Wilson Junior High School on Nahant Rd.

★**Buffalo, N. Y.**—Contract awarded to Mosier & Summers, 1265 Seneca St., for erecting steel and brick parochial school on Tifft St. for Holy Family R. C. Church; structural steel to Buffalo Structural Steel Co.

★Contract awarded to Wm. F. Felton, 46 Glenwood Ave., for additions and alterations to the Bway. Market, at $59,488. Structural steel sublet to Buffalo Structural Steel Co. Howard Beck, City Archt., Municipal Bldg.

Central Islip, L. I., N. Y.—Following are lowest bids opened May 26 bv State Hospital Comn., Albany (E. S. Elwood, Secy.), for erecting addition to laundry, etc., at Central Islip State Hospital, Central Islip; Lewis F. Pilcher, State Archt., Albany:

Addition to store house for refrigerating and ice making plant: Construction work, Wm. H. Egan, 147 E. 125th St., New York, $16,800; refrigerating equipment, American Carbonic Machinery Co., Chicago, Ill., $15,765; plumbing and drainage, W. B. Armstrong Co., Albany, $1,598; electric work, Mack & Mack, Jamaica, $1,729.

Extension to laundry, Central Islip State Hospital—Lowest bidders; construction work: Carbone Co., New York, $17,800; heating work, W. B. Armstrong, Albany, $1,480; plumbing and drainage, John J. Kenney Co., New York, $1,526.

★**Clayville, N. Y.**—Contracts for erecting school have been awarded as follows: Carpenter and mason work, to Walsh Bros., Clayville,; heating, to P. W. Schneider, Inc., Utica; plumbing, to Klein & Hoefler, Utica; electrical work, to Langdon & Hughes, Utica. J. B. Polly, Clk. Bd. Educ.

★**Yonkers, N. Y.**—Contract for erecting Halsted School awarded to Geo. T. Kelly, Yonkers, at about $40,000.

★**Paterson, N. J.**—Contract awarded as follows: May 24, by Bd. Educ. (J. F. Dunphey, Secy.) for erecting addition to School No. 21. Masonry to Jacob H. Steele & Son, at $66,989; concrete work, Jos. Sharpe Constr. Co., $5,480; iron work, Jas. Radcliffe & Sons, $8,000; carpenter work, P. S. Van Kirk Co., $21,405; plumbing and roofing, Frank A. McBride Co., $11,927; also heating, at $16,744. Bidders of Paterson, Wm. T. Fanning, Colt Bldg., Archt.

★**Irwin, Pa.**—Contract for erecting Irwin-North Huntingdon Township High school awarded to J. E. Myers, of Penns Station, Pa.; cost $100,000.

★**Lebanon, Pa.**—Contract for erecting 1 and 2-story brick and stone armory awarded by State Armory Bd., Harrisburg, to F. Roe Searing, Philadelphia; cost about $30,000. McCormick & French, Archts., Wilkes-Barre.

★**Mahoning, Pa.**—Contract for erecting brick school awarded to W. L. Walsh, of Templeton.

★**Tarentum, Pa.**—Contracts for erecting First Ward school awarded as follows: General contract to Rose & Fisher, at $81,939; plumbing, Moss & Blakely, $5,498; heating and ventilating, Jos. A. Langdon & Sons, $16,581. Bidders of Pittsburgh.

★**Wilkes-Barre, Pa.**—Contract awarded by Plains Township School Bd. to Wilson J. Smith, of Wilkes-Barre, for erecting Moffit St. School, at $60,370; heating and ventilating to Wyoming Eng. Constr. Co., N. Main St., at $9,753; plumbing G. T. Farrell, of Plains, at $5,584.

★**Stanton, Va.**—Contract for erecting the barracks at the Augusta Military Academy awarded to Harwood & Moss, of Newport News, at $56,500.

★**Fairmont, W. Va.**—Contract for erecting 3-story brick, stone, steel and terra cotta building at State Normal School awarded to J. L. Crouse, Greensborough, N. C. Paul A. Davis, 3d, Philadelphia, Pa., Archt.

★**Williamson, W. Va.**—Contract for erecting city hall awarded to Martin & Justice, of Williamson, at $23,600.

★**Clarksville, O.**—Contract for erecting 8-room brick school has been awarded to Taylor & Linn, of Zanesville. Heating contract will be let later. Robertson & Fahnestock, Archts., Gerke Bldg., Cincinnati.

★**Columbus, O.**—Contract for erecting 3-story addition to dormitory at Grant Hospital awarded to C. F. Hansberger at about $25,000.

★**Haskins, O.**—Contract for erecting high school has been awarded to C. A. Watts, at $28,344 (bids opened May 21).

★**Lancaster, O.**—Contracts awarded for erecting city hospital (bids opened May 17) as follows: General construction, Asa F. Morelock, Marysville, $32,989; heating and plumbing, Wm. Gessling, Lancaster; elevator and electrical work to be let later. Wilbur F. Mills, Archt., Columbus.

★**North Kingsville, O.**—Contract awarded for erecting grade and high school at North Kingsville to John Johnson & Son, at about $25,000 (bids opened May 17). C. V. Martin, Archt., Ashtabula.

★**Seaman, O.**—Contract awarded by Bd. Educ. to erect an 8-room school to Chas. E. Haas, of Seaman (bids opened May 27).

★**Wooster, O.**—Contract for erecting 4-story brick addition to Kinney & Knestrick Hospital awarded to John Hilder, of Madisonburg.

★**Zanesville, O.**—Contract awarded to Dunzweiter Bros., Zanesville, for erecting 3-story Bethesda Hospital, at $47,367. Other bidder for 3-story building E. Mast, $48,760. Plumbing and heating awarded to Bartholomew Bros., at $11,247.

★**Ft. Wayne, Ind.**—Contract awarded to Indiana Eng. Co. for erecting the brothers' school, which is to cost about $40,000. Chas. R. Weatherhogg, Archt., Hamilton Natl. Bank Bldg.

★**Winchester, Ind.**—Contract for erecting ward school awarded to Shiel Chapin Constr. Co., of Indianapolis, at $31,000.

★**Detroit, Mich.**—Contract awarded for structural steel work for superstructure for main library building (bids opened May 13) to American Bridge Co., Beecher St., at $65,750. Next 3 lowest bids: Jones & Laughlin, Penobscot Bldg., $71,960; Riter-Conley, Pittsburgh, $72,075; Lewis-Hall Iron Wks., Ferry Ave., $76,948.

★**Pekin, Ill.**—Contract for erecting high school awarded by School Bd. to E. F. Lampitt, of Pekin, at $70,210, and for heating and plumbing to Ruhaak & Lackman Co., of Pekin, at $17,358.

★**Milltown, Wis.**—Contracts awarded to erect a high and grade school as follows: General construction to McManis & Tarnoski, St. Paul, Minn.; plumbing, heating and electric work to Clifton Co., Owatonna, Minn. Alban & Lockhart, Archts., Endicott Bldg., St. Paul.

★**Ames, Ia.**—Contract for erecting city hall and fire station awarded to J. E. Tusant & Co., of Des Moines, at $41,519.

★**Bonaparte, Ia.**—Contract awarded by Independent School Dist. for erecting high and grade school from plans of Underhill & Dean, Bryant Bldg., Kansas City, Mo., as follows General construction to Western Constr. Co., Iowa City; heating and plumbing to W. G. & A. V. Backford, Bonaparte.

★**Vinton, Ia.**—Contract has been awarded for erecting county home to F. W. Chapman, of Waterloo, at $28,000 (bids opened May 27). H. E. Gilchrist, Co. Aud.

★**Hayfield, Minn.** — Contract awarded May 25 for erecting high school to G. Schwartz & Co., Rochester, at $42,750. C. Howard Parsons, Archt., Phoenix Bldg., Minneapolis. Geo. P. Hagen, Secy. Bd. Educ.

★**Minneapolis, Minn.**—Johnson Constr. Co., 624 Plymouth Bldg., has contract for erecting following buildings: Addition to Margaret Fuller School, Harriet Ave. and 48th St., cost $60,000, and 1 and 2-story additions, 25 x 143 ft. and 36 x 105 ft., to John A. Johnson School, 38th Ave S. and 31st St., to cost $40,000 respectively.

★**Sherman, Tex.**—Contract awarded to L. M. Miller Constr. Co. of McKinney for erecting the administration building for Carr Burdette-Carlton College at about $50,000.

★**Oregon.**—Contract awarded by Superv. Archt., Washington, D. C., to John W. Hillstrom, of Marshfield, Ore., for erecting lifesaving station at Coos Bay, Ore., at $29,500.

★**Ellensburg, Wash.**—Contract for erecting city power plant building has been awarded to W. A. Kraner & Co., Portland, Ore., at $60,000 (bids opened May 14).

★**Pendleton, Ore.**—Contract for erecting addition to Eastern Hospital for Insane awarded to Olson & Johnson, Inc., Montana Bldg., Missoula, Mont., at $77,680, or if tile flooring, $83,125. W. C. Knight, Archt., Salem.

★**Los Angeles, Cal.**—Contract awarded by Bd. Educ. to Irvine & Dow, for erecting the addition to the school on 66th and San Pedro Sts., at $35,000.

★**Redondo Beach, Cal.**—Contracts for erecting Union High School awarded as follows: General contract to Los Angeles Planing Mill Co., at $102,760; plumbing, J. T. Newell, Los Angeles, at $5,500; heating and ventilating, E. O. Nay, of Pasadena, at $10,140.

★**Woodland, Cal.**—Contract awarded to W. H. Curson and B. Keehn, Woodland, for erecting a school, at $23,953.

School Trus. are considering the two lowest bids for erecting a large school, those of Robt. Trost and H. A. Klyce, of San Francisco, at about $70,000 each.

★**Park City, Utah,**—Contract for erecting U. S. Post Office awarded to Campbell Bldg. Co., of Salt Lake City, at $22,450.

PRIVATE BUILDINGS

PROPOSED WORK.

Worcester, Mass.—Worcester Electric Light Co. intends erecting an addition to the Webster St. and Chase Court plants to cost, including machinery, $210,000. Henry Kent, 141 Bway., New York, is to be supervising engr.

Worcester, Mass.—Worcester Wet Wash Co. will erect on Mason St. a brick and steel laundry 50x100 ft. with separate boiler house.

Plans prepared by E. A. Simpson, Boston, for an 8-story brick, 100 x 140 ft., industrial building which H. H. Bigelow estate intends erecting on Mechanics St.

Providence, R. I.—The Terminal Warehouse Co. intends erecting a brick 100x100 ft. 5-story warehouse.

Binghamton, N. Y.—Reported Scranton & Binghamton Traction Ry. (Richd. W. Day, Gen. Mgr., Scranton, Pa.) intends erecting in this city a terminal passenger and freight station costing $50,000.

Buffalo, N. Y.—Erie County Society for the Prevention of Cruelty to Animals reported to be considering the erection of an office and hospital for animals.

Elmhurst, L. I., N. Y.—St. Bartholomew's R. C. Church has secured a site adjoining the church on which it is proposed erecting a parochial school containing 12 to 16 rooms and a large auditorium.

New York, N. Y.—Plans filed for the following buildings: Two 5-story brick tenements at 533 W. 150th St. for 533 W. 150th St. Construction Co., total cost $100,000, Geo. Fred. Pelham, Archt., 30 E. 42d St.; 12-story fireproof apartment house at 89th St. and West End Ave. for 601 West End Ave., Inc., cost $260,000, Emery Roth, Archt., 405 Lexington Ave.; 5-story brick tenement at Hub Terrace and Heath Ave. for Clent Constr. Co., cost $60,000, John P. Boyland, Archt., 2526 Webster Ave.; 9-story fireproof store and loft building at 5th Ave. and 46th St. for C. M. R. Realty Co., cost $110,000, Lorenz F. J. Weiher, Archt., 271 W. 125th St.; 5-story fireproof settlement house at 507 E. 69th St. for Lenox Hill Settlement Assoc., Inc., cost $50,000, Fred. P. Kelley, Archt., 437 5th Ave.; 5-story brick tenement at Featherbed Lane and Aqueduct Ave. for Hillcrest Bldg. Co., cost $85,000, Moore & Landsiedel, Archts., 3d Ave. and 148th St.; 5-story brick tenement at 180th St. and Mohegan Ave. for Avenue St. John and Fox St. Corporation, cost $65,000, Chas. B. Meyers, 1 Union Sq. W.; 5-story brick tenement at 184th St. and Grand Concourse for Concourse Constr. Corporation, cost $50,000, Moore & Landsiedel, Archts., 3d Ave. and 148th St.; 5-story brick tenement at Mohegan Ave. and 179th St. for Benny. Savio, cost $60,000; Moore & Landsiedel, Archts., 3d Ave. and 148th St.; 5-story brick tenement at Bainbridge Ave. and 199th St. for Danl. Houlihan, cost $50,000, Tremont Architectural Co., Archts., 401 Tremont Ave.; 6-story brick store and tenement at Washington Ave. and 169th St. for Roseff Realty Co., cost $60,000, Gronenberg & Leuchtag, Archts., 303 5th Ave.; two 5-story brick tenements at Bryant Ave. and Home St. for Vyse Bldg. Co., cost $104,000, G. Harry T. Howell, Archt., 3d Ave. and 149th St.; 5-story brick tenement at Prospect Ave. and Fremont Pl. for Trojan Bldg. Co., cost $50,000, Moore & Landsiedel, Archts., 3d Ave. and 148th St.

Rochester, N. Y.—Plans for proposed Chamber of Commerce Bldg. to be erected on St. Paul and Mortimer Sts., 2-story, steel, stone and terra cotta, are being prepared by Claude Bragdon, Cutler Bldg., and Foster & Gado, Sibley Bldg.; cost $500,000.

Utica, N. Y.—A 3-story and basement laundry building 40x140 ft. is to be erected by J. Leahy, 411 John St.; cost $40,000. C. Kiehm, Archt., Garden Blk.

White Plains, N. Y.—The Wykagyl Country Club plans extensive improvements. Probable cost, $50,000.

Philadelphia, Pa.—Wm. Linker, Heed Bldg., has secured site at 831 Cherry St. on which he intends erecting an 8-story concrete commercial and loft building costing $100,000.

Plans completed by F. N. Greisler, Philadelphia, and contract about to be let for erecting a 3-story stone and brick alterations and additions to hotel at 47 N. 17th St.

Plans for 5-story, 36 x 100 ft., office building at 111 N. Broad St. for Philadelphia Life Insurance Co. are to be prepared by A. B. Lacy.

Plans being prepared by Sauer & Hahn, 1112 Chestnut St., for a 6-story brick and reinforced concrete, 65 x 186 ft., loft building to be erected at 315 Arch St. for Chas. Schmidt; cost $80,000.

Pottsville, Pa.—Plans being prepared by Francis X. Reilly, Pottsville, for 3-story brick and terra cotta store building to be erected for Miehle & Co., Inc.

Somerset, Pa.—Plans prepared for a brick passenger station to be erected by the Baltimore & Ohio R. R. M. A. Long, Asst. to Ch. Engr., Baltimore, Md., may be able to give further information.

Huntington, W. Va.—Plans being prepared by C. D. Vooley Co., Century Bldg., Pittsburgh, Pa., for a 3-story brick and concrete, 125 x 150 ft., creamery and office building for the Wilson Creamery Co.

Johnson City, Tenn.—The Elks propose erecting a lodge building costing $30,000.

Memphis, Tenn.—Plans of Mahan & Broadwell, Memphis, selected for the Pythian Home, to be 3-story and cost $50,000.

Lexington, Ky.—Permit issued to John T. Kincaid for a Masonic Temple to be erected on N. Bway. at a cost of $25,000.

Cincinnati, O.—See "Railroads."

Cincinnati, O.—Trus. of Rockdale Temple have commissioned A. Lincoln Fechheimer, Lyric Theater Bldg., to prepare plans for an auditorium annex to cost $40,000.

Cleveland, O.—Preliminary plans prepared for the club and business building which the Bohemian Catholic National Home Assoc. contemplates erecting at Bway. and Mumford Ave. Cost, $100,000.

Columbus, O.—Preliminary plans being prepared for a 300-room hotel which Hotel Star Co. will erect on E. Chestnut St.

Ft. Wayne, Ind.—Al Riegel will erect a 2-story terra cotta and marble building on Jefferson St. costing $100,000.

Newburg, O.—Plans prepared by Wm. J. Carter, 1423 Illuminating Bldg., Cleveland, for the Newburg Masonic Temple, which is to be fireproof and Bedford limestone.

Muncie, Ind.—Jewish citizens are reported to be considering the erection of a temple costing $25,000. Plans are being prepared. A. Feinburg may be able to give further information.

South Bend, Ind.—Joseph Werwinski, of South Bend, intends erecting at Lafayette and Navarre Sts. a 3-story apartment house; cost $30,000.

Beardstown, Ill. — First Methodist Church intends erecting $40,000 edifice.

Chicago, Ill.—International Tailoring Co., 212 S. Market St., intends erecting at Jackson Boule. and Peoria St. a 10-story fireproof building.

Reported erection of a $1,000,000 addition to the Chicago Beach Hotel is contemplated. Richd. M. Gray, Mgr.

Plans being prepared by Marshall & Fox, 38 S. Dearborn St., for a 10-story hotel to be erected at Balmoral Ave. and Sheridan Road at a cost of $1,000,000. John J. Corbett and John S. Connery, real estate dealers, are interested.

Louis M. Cohen, 1250 S. Lawndale Ave., will erect at Perry St. and Sheridan Terrace an apartment house costing $80,000.

Reported a 2 and 3-story warehouse is to be erected at Ashland Ave. and 36th St. for the Union Bag & Paper Co.

Galesburg, Ill.—Reported bids desired by H. A. Craig and Wm. J. Olson for erecting granite and white stone theater costing $75,000.

Milwaukee, Wis.—Plans about completed by Robt. Messner & Son, Majestic Bldg., for a brick fireproof 3-story club house and business building to be erected on 3d and Center Sts. by the Moritz Arndt and Aurora Fraternal Assoc. Cost $35,000.

Plans filed for $60,000 addition to Knights of Columbus building at 15th St. and Grand Ave.

Plans completed by Geo. Zagel for a 3-story solid brick, 64 x 120 ft., apartment house which Chas. Litrow will erect at 38th and Vliet Sts.; cost $50,000.

Plans being prepared by W. T. Neumann for a 3-story solid brick apartment house to be erected on Cass St. by Geo. Adams.

Sioux City, Ia. — Trinity Lutheran Church intends erecting an edifice and parsonage costing $80,000. Rev. David R. Huber, Pastor. Address Bldg. Com.

Waterloo, Ia.—A. Zook, of the firm of Zook & Bentz, 512 Lafayette St., contemplates erecting a 6-story apartment house at E. 5th and Walnut Sts.

Minneapolis, Minn.—A bank and office building costing $300,000 is to be erected at 2d Ave. and 6th St., ground floor to be occupied by Metropolitan Natl. Bank. Hooper & Kidder, 538 McKnight St., may be able to give further information.

St. Paul, Minn.—See "Railroads."

Grand Forks, N. D.—E. Winslow, of Grand Forks, preparing plans for Y. M. C. A. building.

Poplar, Mont.—Reported Overland Hotel and Fort Peck State Bank recently destroyed by fire are to be rebuilt.

St. Louis, Mo.—St. Louis Amusement Co. (Geo. E. Lawler, Secy.) intends erecting on 6th and Pine Sts. a fireproof picture theatre building costing $40,000.

Plans completed by T. P. Barnett, Central Natl. Bank Bldg., for the Adolphus Busch mausoleum to be erected in Bellefontaine Cemetery; cost $500,000.

Galveston, Tex.—Plans being prepared for a 5-story hotel which Steve Sgitcovich intends erecting on 25th and Mechanic Sts. at a cost of $70,000.

Spokane, Wash.—Reported steps are being taken to rebuild the wholesale building of the Powell-Sanders Co. recently destroyed by fire.

Portland, Ore.—Plans completed by Lawrence & Holford, Chamber of Commerce Bldg., for a $65,000 mausoleum which the Portland Mausoleum Co. will erect on E. 14th St. and Bybee Ave.

Oakland, Cal.—Reported Southern Pacific Co. contemplates erecting at 13, 14, Franklin and Webster Sts., a 10-story building and track improvements costing $1,250,000.

BIDS DESIRED.

Syracuse, N. Y.—Reported bids about to be asked for erecting the Masonic Temple; cost $150,000. Gaggin & Gaggin, Syracuse, Archts.

Jersey City, N. J.—Reported Bldg. Com. of Lodge of Elks (Patk. T. Powers, Pres.) will soon ask bids for erecting a club house at 2853 Hudson Boule.; cost $100,000.

Pittsburgh, Pa.—Reported desired until June 10 by F. J. Osterling, Archt., 316 4th Ave., for erecting the Frick Arcade Building.

Manhattan, Kan.—Until June 7 (readvertisement) by E. H. Davies, Manhattan, for furnishing material and erecting Presbyterian Church, either stone or brick, at 8th and Leavenworth Sts. H. B. Winter, Archt., Manhattan.

Redfield, S. D.—Until June 14 by the Merchants' Bank of Redfield for erecting a bank building. F. H. Ellerbe, Archt., Endicott Bldg., St. Paul, Minn.

Kansas City, Mo.—Reported desired until June 7 for erecting a 9-story, 120 x 180 ft., reinforced concrete warehouse and factory for the Ridenour-Baker Grocery Co. McKechnie & Trask, Archts., Lathrop Bldg.

Seattle, Wash.—Reported desired by J. A. Creutzer, Archt., New York Blk., for erecting 3-story and basement brick apartment house at Summit Ave. and Marion St. for T. B. Adams; cost $50,000.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**New Bedford, Mass.** — Contract awarded to J. W. Bishop Co., of Worcester, for erecting the addition to the building of the New Bedford Dry Goods Co., at $25,000.

★**Auburn, N. Y.**—Contract for erecting storehouses for plant of Coleman Rope Co. awarded to John W. Ferguson & Co., Paterson, N. J., at about $35,000.

★**Yonkers, N. Y.**—Contract awarded to Wells Bros., 366 5th Ave., New York, for erecting 3-story concrete and brick office building for the Hodgman Rubber Co., on Scarsdale Ave. W. L. Stoddart, Archt., 9 E. 39th St., New York.

★**Coraopolis, Pa.**—Contract for erecting United Presbyterian Church on State Ave. and Bway. awarded to Hobaugh & Weimer, of Butler, at $51,970.

★**Pittsburgh, Pa.**—Contract for erecting residence for Mrs. Thos. MacConnell, Jr., on Warwick Terrace, Morewood Heights, awarded to Chas. S. Smith, 5501 Centre St., at about $50,000. Vrydaugh & Wolfe, Archts., Pittsburgh.

★**Savannah, Ga.**—Contract awarded to R. W. Wimbish, of Savannah, for erecting 6 brick apartment houses for F. M. Oliver at Bull and 36th Sts. H. Wallin, Archt., Savannah.

Springfield, O. — Following are four lowest bids opened May 15 by Bldg. Com. for erecting Masonic Temple: A. M. Frye, $42,448; Martin Bros., Hamilton, and A. M. Frye bid the same at $43,786; Cullen & Vaughn, Hamilton, $43,801.

★**Urbana, O.**—Contract awarded by Masonic Temple Assoc. to A. M. Fry, of Piqua, at $44,000, to erect a 2-story and basement building 57 x 100 ft. F. G. Mueller, Archt., Rentschler Bldg., Hamilton.

★**Urbana, O.** — Contract for erecting 2-story brick and stone Masonic Temple awarded to A. M. Fry, of Piqua, at $44,000.

★**Sioux City, Ia.**—Contract for erecting 4-story concrete fireproof building at Virginia St. and Illinois Central track for C. T. Hopper Furniture Co. awarded to B. E. Short, at about $50,000.

★**Devils Lake, N. D.**—Contract for erecting lodge building for Devils Lake Lodge of Elks No. 1216 awarded to Johnson Constr. Co., Fargo, at $27,997.

Bozeman, Mont.—Contract awarded to H. J. Hammill & Co., Bozeman, for erecting 3-story brick and granite $50,000 parochial school and parish house for Holy Rosary Church.

★**Argenta, Ark.**—Contract awarded to J. H. Leveck, Little Rock, for rebuilding the Topf & Wright Bldg., at 200 E. Washington Ave., at about $35,000.

★**Galveston, Tex.**—Contract awarded by Galveston Wharf Co. to Stone & Webster Eng. Co., New York and Boston, Mass., for erecting a 2-story reinforced concrete warehouse, 1300 ft. long and 250 ft. wide; cost approximately $450,000.

★**Port Arthur, Tex.**—Contract awarded to Warren McDaniel, at $23,000 for erecting First Methodist Church on Lake Shore Drive and Stilwell Boulevard.

★**Ellensburg, Wash.**—Contract awarded for erecting a dormitory at Ellensburg State Normal School, to Fulton & Carlson, Ellensburg, at $20,438 (bids opened May 24).

NEW INDUSTRIAL PLANTS

PROPOSED WORK.

Lawrence, Mass.—Victor Typewriting Company, 812 Greenwich St., New York, intends erecting a 4-story plant here costing $400,000 and machinery $900,000 additional.

Lawrence, Mass.—Victor Typewriter Co., 812 Greenwich St., New York, N. Y., will erect a 4-story 70 x 750 ft. plant on Beacon St., U shaped.

Lowell, Mass.—The U. S. Cartridge Co. intends erecting an addition 50 x 350 ft. to the plant on Laurence St.; cost $60,000.

Derby, Conn.—Plans about completed by Trost & Chamberlain, State Bldg., Worcester, Mass., for factory to be erected at Derby Line, Conn., for Union Twist Drill Co.

New London, Conn.—Thames Dyeing & Bleaching Co. will erect 2 brick buildings at Niantic, each 80x150 ft.

Waterbury, Conn.—Plans prepared by Jencks & Ballon, Providence, R. I., for a 1 and 2-story brick and steel machine shop 100 x 200 ft.

Brooklyn, N. Y.—Plans filed for 7-story brick factory and restaurant to be erected at Bond and Fulton Sts. by Jason S. Bailey, Thomasville, Ga., cost $225,000, Parfitt Bros., Archts., 26 Court St.; and a 10-story brick factory building at Jay and Front Sts. for Grand Union Tea Co., 68 Jay St., cost $100,000; Wm. Higginson, Archt., 21 Park Row.

Buffalo, N. Y.—Plans prepared for 5-story reinforced concrete 60x80 ft. addition to plans of A. Nawak & Sons, at Bway. and N. Y. Central R. R. Belt Line.

Schenectady, N. Y.—A 1-story 60x320 ft. machine shop is to be erected at the plant of the General Electric Co.; cost approximately $160,000.

Mercer, Pa.—Reznor Mfg. Co. intends erecting a factory, 240 x 60 ft., near their warehouse; cost, $60,000.

Charleston, S. C.—A machine shop, it is reported, is to be erected here by the Atlantic Coast Lumber Corporation.

Piedmont, Ala.—Reported Coosa Mfg. Co. will erect an annex, 118 x 105 ft., 10 to 15 cottages and install about 10,000 spindles; cost, $100,000.

New Orleans, La.—Dock Bd. has sold $1,250,000 bonds. This money is to be used by Bd. Port Conrs. in erecting additional grain elevator facilities at this port.

Barberton, O.—Plans prepared for a fireproof $300,000 factory which Portage Rubber Co. will erect here.

Cincinnati, O.—Permit issued for $25,000 stone and concrete addition to be erected at plant of Standard Marble Wks., Front and Mill Sts.

St. Bernard, O.—Plans completed by Harry Hake, Cincinnati, for a factory to be erected by the Stacy Bros. Constr. Co., to be 100x100 ft. with power plant.

Ligonier, Ind.—Reported plant of Banta Binder Co., for manufacture of refrigerators, incubators, etc., recently destroyed by fire is to be rebuilt.

Jackson, Mich.—An addition costing $25,000 is to be erected at the plant of the Jackson Cushing Spring Co.

Milwaukee, Wis.—Plans prepared by Toitz Eng. Co., St. Paul, Minn., for grain elevator having capacity of 2,500,000 bu. which North Western Ry. (W. H. Finley, Ch. Engr., Chicago, Ill.) intends erecting here at a cost of $500,000

Agnew, Cal.—Reported Pacific Chemical Co. intends erecting a plant here. A. S. Wiester, Engr., San Francisco interested.

Idaho Falls, Idaho.—Reported Western Milling & Elevator Co. will erect a 500-bu. flour mill costing $75,000.

BIDS DESIRED.

Jacksonville, Ill.—Until June 7 by Bd. Administration, Capitol, Springfield, (Frank D. Whipp, Fiscal Supervisor) for erecting a cold storage building and refrigerating equipment at the Illinois School for Blind at Jacksonville. Separate bids on general construction, plumbing, heating, etc. Jas. B. Dibelka, State Archt., 130 N. 5th Ave., Chicago.

Kansas City, Mo.—Reported desired until June 7 by Ford Motor Car Co., care of H. S. Morgan, Highland Park, Detroit, for erecting a 3-story addition to a factory; also for erecting a 3-story factory. Albert Kahn and Ernest Wilby, Archts., 58 Lafayette Ave., Detroit.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Springfield, Mass.**—Contract for erecting 5-story brick and concrete factory for W. H. Miner Chocolate Co. awarded to Danl. O'Connell Sons, of Holyoke. Cost $70,000. Bliss & Faville, Archts.

★**Buffalo, N. Y.**—Contract awarded by J. H. Williams Co., mfrs. of drop forgings, to John W. Ferguson Co., 152 Market St., Paternson, N. J., for erecting on O'Neil St. and N. Y. Central R. R. a 1-story steel and brick 136x33 ft. and 142x82 ft. addition to their plant.

★**Attala, Ala.**—Contract for erecting cotton warehouse and compress plant awarded by J. H. Arnold & Co. to W. T. Christopher, of Gadsden, Ala., to be 400x250 ft. brick fireproof construction.

★**Birmingham, Ala.**—Contract awarded to Hernson-Hettrick Eng. Co., 1502 Empire Bldg., Birmingham, for erecting cold storage warehouse at Ave. E and 22d St., for Birmingham Ice Factory, to be 5-story 70x120 ft. reinforced concrete throughout, lined with 6 in. cork and cork insulated throughout; exterior walls hollow tile with 4 in. brick veneer; approximate cost $100,000.

★**Cincinnati, O.**—Contract for carpenter work on the $40,000 addition to the Standard Marble Wks. awarded to D. Meinken; structural steel to Massillon Bridge & Steel Co.

★**Ft. Williams, Ont.**—Reported contract for erecting cleaning elevator adjoining present storage elevator of Western Terminal Elevator Co. awarded to S. J. McQueen.

★**Vancouver, B. C.**—Permit issued for terminal grain elevator to be erected at foot of Salisbury Drive for Grain Comrs. Barnett, McQueen Co., Ltd., Ft. Williams, Ont., general contractors.

MISCELLANEOUS

PROPOSED WORK.

Grand Stand—Brooklyn, N. Y.—Plans have been filed with the Building Bureau for steel grandstand to be built at the Sheepshead Bay track, for Sheepshead Bay Speedway Corp.; the structure will be 3 stories high, 1,225 ft. in length; estimated to cost upward of $150,000. Architect and Engr., Blaine H. Miller.

Coal Hoisting Machinery, Etc.—New York, N. Y.—Plans being prepared by Chas. Houchin Higgins, 30 Church St., for coal hoisting machinery, screens, head house, rescreening pockets, office and scales, in connection with coal handling plans, to be erected by O. H. Perry & Son, Inc., at foot of E. 19th St. Contract for main pocket recently let to General Cont. & Eng. Co.

Park Waterfall—Philadelphia, Pa.—The Com. on Plans and Improvements of Fairmount Park Comrs. reported to have voted to construct waterfall and cascade at west side of Fairmount reservoir. Cost, $9,000.

Ratproofing Wharves—New Orleans, La.—The Julia St. wharves, where the United Fruit Co. passengers and freight lines are berthed, will be ratproofed by the Dock Board, at a cost of $105,000.

Power Plants—Cincinnati, O.—Directors of Columbia Gas & Electric Co. have approved tentative agreement recommended by joint committee appointed by Cincinnati Gas Electric Co., relative to building new power plant.

Subway—Flint, Mich.—Council reported to have decided to issue $50,000 bonds to construct subway under Pere Marquette tracks for extension of Leith St. in north end city.

Swimming Pool—Tomah, Wis.—G. R. Bascom, of Madison, has submitted to city, report on swimming pool, and recommends a tank 60 x 100 ft. liquid chlorine sterilizing apparatus, and refuse burner for water heater.

Dock Tanks, Etc.—Linnton, Ore.—The Shell Oil Co. reported to have decided to construct docks, warehouses, tanks and reservoirs in this city, from plans of Reitz & Storey, Northern Bank & Trust Bldg., Seattle, Wash.

BIDS DESIRED.

Stalls, Etc., for Market—New York, N. Y.—Until June 14 by Chas. Houchin Higgins, Consulting Engr., 30 Church St., for structures and fixtures for stalls at Washington Market; this work is the part to be done by tenants, before moving into remodeled market.

Tunnel—Pittsburgh, Pa.—Until July 12 by Hyatt M. Cribbs, Co. Compt., for constructing a tunnel and the approaches known as County Highway Tunnel No. 1, advertised in Engineering Record. Certified check, $150,000. A. D. Neeld, County Consulting Engr., 237 4th Ave.

Iron, Steel, Etc.—Washington, D. C.—Until June 22 by Depot Q. M., U. S. A., Washington, D. C., for furnishing iron, steel, brass, copper, wire, bolts, etc., for delivery during fiscal year, 1915.

Lubricating Oils—Washington, D. C.—Until June 16 by Jas. A. Wetmore, Acting Supervising Archt., Treas. Dept., for supplying to various public buildings under control of Treasury Dept., lubricating oils during fiscal year ending June 30, 1916, advertised in Engineering Record.

Sulphate of Alumina — Washington, D. C.—Until June 26 by Us. S. Engineer's Office, Room 305, Southern Bldg., for furnishing and delivering 300 tons, more or less, of sulphate of alumina, advertised in Engineering Record.

Cranes—Norfolk, Va.—Until June 15 by Bureau Yards and Docks, Navy Dept., Washington, D. C., for furnishing and delivering at Navy Yard, Norfolk, as per Sch. 8364 — Two jib-lifting hydraulic cranes.

Boiler, etc., Elburn, Ill.—Until June 9 by C. E. Morrill, Clk. Bd. Trus., for one steam engine, one boiler, one feed pump and one open heater.

Sprinkler System for Warehouse—Seattle, Wash.—Reported desired until June 16 by Port Seattle Comrs. (C. E. Remsberg, Secy.) for installation of a sprinkler system and other fire apparatus for the fruit storage building, Eastways terminals; cost $16,000.

PRICES AND LETTINGS.

★*Indicates award of contract.*

Stone—Wilmington, N. C.—Following are totals of bids opened May 26 by Maj. H. W. Stickle, Corps. Engrs., U. S. A., Wilmington, for furnishing and delivering about 19,700 tons crushed stone: C. E. Lathrop & Co., Richmond, Va., $43,492; Virginia Sand & Gravel Cor., Norfolk, Va., $39,260; S. E. Morris Co., Norfolk, Va., $45,571; Robt. G. Lassiter, Raleigh (2 bids), $41,487 or $40,503; Weston & Brooker Quarry Co., Columbia, S. C., $42,376.

★**Concrete Chimney—New Orleans, La.**—Contract for concrete chimney for cotton warehouses and terminals for the Port of New Orleans, have been awarded to Weber Chimney Co., Chicago, Ill., at $1,935. Engineers, Ford, Bacon & Davis, New Orleans.

★**Filter Sand and Gravel—Cleveland, O.**—Contract awarded by Bd. of Control to Cleveland Macadam Co., Cleveland, for filter sand and gravel for the Division Ave. filtration plant, at $20,450 (bids opened May 20).

★**Excavations, Etc.—Salt Lake City, Utah.**—Contract awarded by Utah State Capitol, Comn., for excavations and filling required on Capitol Grounds, Utah State Capitol Bldg., to Utah Constr. Co., Ogden, at 16.5 cts. per cu. yd. (bids opened May 22). Richd. Kletting, Archt., Felt Bldg.

Proposals

For Proposals Advertised, see Pages 48, 49 and 50.

WATERWORKS.

Bids Close.		See Eng. Record.
Jun. 7.	Pipe, Lockport, N. Y. Adv. May 29.	May 29
Jun. 8.	Water Wks., Temple, Tex.	May 29
Jun. 8.	Tank and Tower, Marshall, Minn	Jun. 5
Jun. 9.	Pipe, Chicago, Ill.	Jun. 5
Jun. 9.	Repair to engines, Cleveland, O.	Jun. 5
Jun. 10.	System, Shepherdstown, W. Va.	Jun. 5
Jun. 11.	Pumphouse and pumping plant, Ft. Sam Houston, Tex.	May 29
Jun. 14.	Intake Pipe, etc., Kenosha, Wis. Adv. May 22 to June 5.	May 22
Jun. 14.	Softening Plant, Napoleon, O. Adv. May 29.	May 29
Jun. 14.	Mains, Eastview (P. O. Warrenville), O.	Jun. 5
Jun. 14.	Pump, Wilmington, Del.	Jun. 5
Jun. 14.	Meters, Washington, D. C.	Jun. 5
Jun. 15.	System, Campbell, Minn.	Jun. 5
Jun. 21.	Pump, Salem, Mass. Adv. May 29.	May 29
Jun. 22.	Improv., Butler, Mo. Adv. Jun. 5.	Jun. 5
Jun. 22.	Contract 159, Coagulating Plant, New York, N. Y. Adv. Jun. 5.	Jun. 5
Jun. 25.	Tower, Stratford, Ont. Adv. Jun. 5.	Jun. 5
Jun. 25.	Water Wks. Improv., Harrison, Ark.	May 29
Jul. 1.	Dam, Columbus, O. **Adv. Jun. 5.**	Jun. 5

SEWERAGE AND SEWAGE DISPOSAL.

Bids Close.		See Eng. Record.
Jun. 7.	Downington, Pa. Adv. May 15, 22.	May 15
Jun. 8.	**Beaver Falls, Pa. Adv. May 22, 29.**	**May 22**
Jun. 8.	North Bend, Ore.	May 29
Jun. 8.	Toronto, Ont.	May 29
Jun. 8.	Walla Walla, Wash.	May 29
Jun. 9.	Struthers, O.	May 8
Jun. 9.	Maplewood, Mo.	May 22
Jun. 10.	Montrose, Pa.	May 29
Jun. 10.	Washington, D. C. Adv. Jun. 5.	Jun. 5
Jun. 10.	Cleveland, O.	Jun. 5
Jun. 11.	Donnelsville, O.	May 29
Jun. 11.	Springfield, O.	Jun. 5
Jun. 15.	Sisseton, S. D.	May 29
Jun. 14.	**Greenwich, Conn. Adv. Jun. 5.**	**Jun. 5**
Jun. 15.	Burlington, Ont.	Jun. 5
Jun. 16.	Engineer for Sewer System, Cleveland, Tenn. Adv. May 29.	May 29
Jun. 16.	Columbus, O.	May 29
Jun. 18.	Okolona, Miss. Adv. May 29, June 5.	May 29
Jun. 18.	Chicago, Ill. Adv. Jun. 5.	Jun. 5
Jun. 18.	St. Louis, Mo.	Jun. 5
Jun. 22.	Baltimore, Md.	May 29
Jun. 24.	Chicago, Ill. Adv. Jun. 5.	Jun. 5

BRIDGES.

Bids Close.		See Eng. Record.
Jun. 7.	Glenolden, Pa. Adv. May 29.	May 29
Jun. 8.	Stockton, Cal.	May 22
Jun. 8.	Seattle, Wash.	May 22
Jun. 8.	Ottawa, O.	May 29
Jun. 8.	Phoenixville, Pa.	Jun. 5
Jun. 8.	Hanson, Okla.	Jun. 5
Jun. 8.	Sallisaw, Okla.	Jun. 5
Jun. 8.	Lumpkin, Ga.	Jun. 5
Jun. 9.	New Gretna, N. J. Adv. May 22. (2 Prop.)	May 22
Jun. 9.	Hamilton, O.	May 22
Jun. 9.	Great Bend, Kan.	May 29
Jun. 9.	Toronto, Ont.	Jun. 5
Jun. 9.	Illinois	Jun. 5
Jun. 11.	Red Lake Falls, Minn.	May 29
Jun. 12.	Bucyrus, O.	May 29
Jun. 12.	Illinois	Jun. 5
Jun. 14.	Ashland, O.	May 22
Jun. 14.	South Cayuga, Ont.	May 29
Jun. 14.	Washington	May 29
Jun. 14.	Meadville, Pa.	Jun. 5
Jun. 15.	Laredo, Tex.	May 29
Jun. 15.	Maryland Adv. May 29, June 5.	May 29
Jun. 16.	Rome, Ga.	May 22
Jun. 19.	Hamilton, O.	May 29
Jun. 19.	Topock, Ariz. Adv. Jun. 5.	Jun. 5
Jun. 25.	Seattle, Wash.	May 29
Jun. 28.	Lebanon, O.	Jun. 5

PAVING AND ROADS.

Bids Close.		See Eng. Record.
Jun. 7.	Maysville, Ky. Adv. May 29.	May 29
Jun. 8.	Mt. Vernon, Wash.	May 15
Jun. 8.	Stevenson, Wash.	May 22
Jun. 8.	Noblesville, Ind.	May 22
Jun. 8.	Woonsocket, R. I. Adv. May 29.	May 29
Jun. 8.	Walla Walla, Wash.	May 29
Jun. 8.	Covington, Ky.	Jun. 5
Jun. 8.	Carlisle, Ky.	Jun. 5
Jun. 8.	Kansas City, Mo.	Jun. 5
Jun. 8.	Rahway, N. J.	Jun. 5
Jun. 8.	Indiana	Jun. 5
Jun. 8.	West New York, N. J.	Jun. 5
Jun. 9.	**Struthers, O.**	**May 8**
Jun. 9.	St. James, Minn.	May 29
Jun. 9.	Seattle, Wash	May 29
Jun. 9.	Sheldon, Ia.	Jun. 5
Jun. 9.	Brooklyn, N. Y.	Jun. 5
Jun. 9.	Illinois	Jun. 5
Jun. 9.	Portland, Ore.	Jun. 5
Jun. 9.	Sheldon, Ia.	Jun. 5
Jun. 9.	Chicago, Ill.	Jun. 5
Jun. 10.	Pittsburgh, Pa.	May 29
Jun. 10.	Sandpoint, Idaho	May 29
Jun. 10.	Pittsburgh, Pa.	Jun. 5
Jun. 10.	Jersey City, N. J.	Jun. 5
Jun. 11.	Cincinnati, O.	May 22
Jun. 11.	St. Louis, Mo.	Jun. 5
Jun. 12.	Racine, Wis.	May 29
Jun. 12.	Utica, O.	Jun. 5
Jun. 12.	Wauwatosa, Wis.	Jun. 5
Jun. 12.	Berlin Center, O.	Jun. 5
Jun. 14.	Seattle, Wash.	May 22
Jun. 14.	Vancouver, Wash.	May 29
Jun. 14.	Sault Ste. Marie, Mich. Adv. May 29, June 5.	May 29
Jun. 14.	Washington	Jun. 5
Jun. 14.	Port Orchard, Wash.	Jun. 5
Jun. 14.	Washington	Jun. 5
Jun. 14.	Elma, Wash.	Jun. 5
Jun. 14.	Media, Pa. Adv. Jun. 5.	Jun. 5
Jun. 15.	Philadelphia, Pa. Adv. May 29, June 5.	May 29
Jun. 15.	St. Cloud, Minn	May 29
Jun. 15.	Maryland	Jun. 5
Jun. 15.	Marshalltown, Ia. Adv. Jun. 5.	Jun. 5
Jun. 15.	Columbus, O.	Jun. 5
Jun. 15.	Sandpoint, Idaho	Jun. 5
Jun. 16.	Ft. Leavenworth, Kan.	May 29
Jun. 16.	Albany, N. Y. Adv. May 29, June 5.	May 29
Jun. 16.	Easton, Md. Adv. Jun. 5.	Jun. 5
Jun. 17.	Newark, N. J.	Jun. 5
Jun. 18.	Steubenville, O.	May 29
Jun. 18.	Glendale, O.	May 29
Jun. 18.	Cincinnati, O.	May 29
Jun. 18.	Bremen, Ind.	May 29
Jun. 19.	Painesville, O.	May 29
Jun. 21.	Baton Rouge, La.	May 22
Jun. 21.	Brainerd, Minn.	May 22
Jun. 21.	Olympia, Wash.	Jun. 5
Jun. 21.	Seattle, Wash.	Jun. 5
Jun. 21.	Clarksville, Tex. Adv. Jun. 5.	Jun. 5
Jun. 22.	Maryland	Jun. 5
Jun. 26.	Columbus, O.	May 22
Jun. 29.	Grand View Heights, O.	Jun. 5
Jun. 29.	Toledo, O.	Jun. 5
Jun. 30.	De Land, Fla. (Two. prop.) Adv. Jun. 5.	Jun. 5

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Bids Close.		See Eng. Record.
Jun. 7.	Shore Protection Wks., Stone Harbor, N. J. Adv. May 29.	May 29
Jun. 7.	Dredge, Etc., Kansas City, Kan. Adv. May 29.	May 29
Jun. 9.	Dredging, Trenton, Tenn.	May 22
Jun. 9.	Ferry Landing, Seattle, Wash.	May 29
Jun. 10.	Wharf Sheds, Jacksonville, Fla.	May 29
Jun. 10.	Drainage, Cheney, Wash.	May 29
Jun. 10.	Ditch, Fairmont, Minn.	Jun. 5
Jun. 11.	Ditch, Improv., Elbow Lake, Minn.	May 29
Jun. 11.	Drainage, North Yakima, Wash.	May 29
Jun. 12.	Rebuilding Wharves, etc., Newport, R. I. Adv. May 15 to June 5.	May 15
Jun. 12.	Repairs to Piers, Boston, Mass.	Jun. 5
Jun. 14.	Dam, Lock Haven, Pa. Adv. May 22. 29.	May 22
Jun. 14.	Ditch, Everett, Wash.	May 29
Jun. 14.	Ditches, Everett, Wash.	Jun. 5
Jun. 14.	Ditch, Marshall, Minn.	Jun. 5
Jun. 14.	Breakwater, Petite Rivere, Que.	Jun. 5
Jun. 15.	Excav. for Earth and Rock, Detroit, Mich. Adv. May 8, 15 and June 5.	**May 8**
Jun. 15.	Dam, Montreal, Que.	May 15
Jun. 15.	Power House at Dam 29, Ashland, Ky. Adv. May 29, June 5.	May 29
Jun. 15.	Lock Gates, Valves, Etc., Vicksburg, Miss. Adv. May 29, June 5.	May 29
Jun. 16.	Canal Excav., Payson City, Utah.	May 22
Jun. 16.	Dredging, Newport, R. I. Adv. May 15 to June 5.	May 15
Jun. 17.	Earthwork for Levee, St. Louis, Mo. Adv. May 22 to June 5.	May 22
Jun. 18.	Extension to Pier, Cap Chat, Que.	May 29
Jun. 18.	Retaining Wall, Cincinnati, O.	May 29
Jun. 19.	Superstructure of Pier, Erie, Pa. Adv. May 22 to June 5.	May 22
Jun. 21.	Dredging, Boston, Mass. Adv. May 22 to June 5.	May 22
Jun. 21.	Dredging, Philadelphia, Pa. Adv. May 22 to June 5.	May 22
Jun. 21.	Repair to Bank Protection, Augusta, Ga. Adv. May 29, June 5.	May 29
Jun. 23.	Breakwater, Oswego, N. Y. Adv. Jun. 5.	Jun. 5
Jun. 25.	Wharf, Southport, N. C.	May 29
Jun. 25.	Rip Rap and Repairing Sea-Wall, New York, N. Y. Adv. May 29, June 5.	May 29
Jun. 26.	Levee Wk., Caldwell, Tex.	May 29
Jun. 26.	Levee Enlargement, Vicksburg, Miss.	Jun. 5
Jun. 29.	Repairing Wall and Breakwater, Block Island, R. I. Adv. Jun. 5.	Jun. 5
Jun. 28.	Dredging, New York, N. Y. Adv. Jun. 5.	Jun. 5
Jun. 30.	Steel for Lock Construction, Sault Ste. Marie, Mich. Adv. May 29, June 5.	May 29
Jun. 30.	Ferry and Dock Improv- West Point, N. Y. Adv. Jun. 5.	Jun. 5
Jul. 1.	Irrigation, Great Falls, Mont.	Jun. 5

PUBLIC BUILDINGS AND SCHOOLS.

Bids Close.		See Eng. Record.
Jun. 8.	Reading, Pa.	May 8
Jun. 8.	Louisville, Ky.	May 15
Jun. 8.	**Parry Sound, Ont.**	**May 15**
Jun. 8.	Tomah, Wis.	May 22
Jun. 8.	Mahoningtown, Pa.	May 22
Jun. 8.	Gardner, Kan.	May 29
Jun. 8.	Newark, N. J.	May 29
Jun. 8.	Detroit, Mich.	May 29
Jun. 8.	Bastrop, La.	Jun. 5
Jun. 8.	Amory, Miss.	Jun. 5
Jun. 8.	Collingswood, N. J.	Jun. 5
Jun. 8.	Warrensburg, Mo.	Jun. 5
Jun. 8.	Columbus, Ind.	Jun. 5
Jun. 9.	Detroit, Mich. Adv. May 15.	May 15
Jun. 9.	Hamilton, O.	May 22
Jun. 9.	Blackwell's Island, N. Y.	Jun. 5
Jun. 9.	Baltimore, Md.	Jun. 5
Jun. 10.	Ft. Stevens, Ore.	May 29
Jun. 10.	St. Paul, Minn.	May 29
Jun. 10.	Los Angeles, Cal.	May 29
Jun. 10.	Fairchance, Pa.	Jun. 5
Jun. 10.	Decatur, Ga.	Jun. 5
Jun. 10.	Chicago, Ill.	Jun. 5
Jun. 10.	Jersey City, N. J.	Jun. 5
Jun. 10.	Los Angeles, Cal.	Jun. 5
Jun. 11.	Minerva, O.	May 29
Jun. 11.	Ft. Worden, Wash.	May 29
Jun. 11.	Ellendale, N. D.	Jun. 5
Jun. 11.	Stratton, Neb.	Jun. 5
Jun. 12.	Westfield, Mass.	Jun. 5
Jun. 12.	Freedom, O.	Jun. 5
Jun. 12.	Cornell, Wis.	Jun. 6
Jun. 14.	Marlin, Tex.	May 8
Jun. 14.	Tampa, Fla. Adv. May 8, 15.	May 8
Jun. 14.	Toledo, O.	May 22
Jun. 14.	Albion, Ia.	May 29
Jun. 14.	Urbana, O.	May 29
Jun. 14.	Plans, Wheeling W. Va. Adv. June 5.	May 29
Jun. 14.	Rochester, N Y.	May 29
Jun. 14.	Warwick, N. D.	May 29
Jun. 14.	Grand Rapids, Mich. Adv. May 29.	May 29
Jun. 14.	Brooklyn, N. Y.	May 29
Jun. 14.	Rankin, Pa.	May 29
Jun. 14.	Barberton, O.	Jun. 5
Jun. 14.	Armstrong, Ia.	Jun. 5
Jun. 14.	Wheeling, W. Va.	Jun. 5
Jun. 14.	Opelika, Ala.	Jun. 5
Jun. 15.	Primghar, Ia.	May 15
Jun. 15.	Ft. Sill, Okla. Adv. May 22 to June 5.	May 22
Jun. 15.	Columbus, O.	May 29
Jun. 15.	Cleveland, O.	Jun. 5
Jun. 15.	Madera, Cal.	Jun. 5
Jun. 15.	Oswego, N. Y. Adv. Jun. 5.	Jun. 5
Jun. 15.	Albany, N. Y.	Jun. 5
Jun. 16.	Connersville, Ind.	May 22
Jun. 16.	Woodworth, N. D.	Jun. 5
Jun. 18.	Springfield, O.	May 29
Jun. 18.	Brownsburg, Ind.	Jun. 5
Jun. 18.	Hyde Park, Cal.	Jun. 5
Jun. 19.	Radnor, O.	May 29
Jun. 21.	Cuero, Tex.	May 15
Jun. 21.	Ft. Terry, N. Y. Adv. May 29, June 5.	May 29
Jun. 23.	Allentown, Pa.	May 22
Jun. 23.	Beverly, O.	Jun. 5
Jun. 24.	Mt. Vernon, N. Y.	May 29
Jun. 25.	Cleveland, O.	Jun. 5
Jun. 25.	Toledo, O.	Jun. 5
Jun. 26.	Radnor, Miss.	Jun. 5
Jun. 28.	Canton, O.	May 29
Jun. 26.	Brooklyn, N. Y.	Jun. 5
Jun. 29.	Charleston, W. Va.	Jun. 5
July 1.	**Boston, Mass.**	**May 22**
July 2.	Charlotte, N. C.	May 29
Jul. 7.	San Francisco, Cal.	Jun. 5
July 8.	Des Moines, Ia.	Jun. 5
July 9.	Beardstown, Ill.	Jun. 5
July 13.	**Washington, D. C.**	**May 22**
Aug. 1.	Seattle, Wash.	Jun. 5
———	Greenville, S. C. Adv. May 1.	May 1

PRIVATE BUILDINGS.

Bids Close.		See Eng. Record.
Jun. 1.	Omaha, Neb.	May 29
Jun. 5.	Ames, Ia.	May 29
Jun. 5.	Wabash, Ind.	May 29
Jun. 9.	Brantford, Ont.	May 29
Jun. 10.	Chicago, Ill.	May 29
Jun. 10.	Pittsburgh, Pa.	Jun. 5
Jun. 14.	Redfield, S. D.	Jun. 5
Jun. 17.	Spencer, Ia.	May 29

NEW INDUSTRIAL PLANTS.

Bids Close.		See Eng. Record.
Jun. 2.	Beacon, N. Y. Adv. May 22, 29.	May 22
Jun. 7.	Montreal, Que.	May 22

MISCELLANEOUS.

Bids Close.		See Eng. Record.
Jun. 1.	Elevators, Seattle, Wash.	May 15
Jun. 1.	Street Cleaning, Washington, D. C.	May 29
Jun. 2.	Car Tracks on Viaduct, Cincinnati, O.	May 29
Jun. 3.	Lighting Fixtures in Pub. Bldg., New York, N. Y. Adv. May 8, 15.	May 8
Jun. 3.	Equipment for School, Montclair, N. J. Adv. May 22.	May 22
Jun. 5.	Reinforcing Bars, Panama.	May 22
Jun. 7.	Cement, Seattle, Wash.	May 22
Jun. 7.	Power House Improv., Hull, Que. Adv. May 22.	May 22
Jun. 7.	Sect. 2, N. Y. Connecting Ry., Queens Boro., L. I., N. Y. Adv. May 22, 29.	May 22
Jun. 7.	Cement, San Jose, Cal.	May 29
Jun. 8.	Coal and Ash Handling Apparatus, Anacostia, D. C.	May 22
Jun. 8.	Lumber, San Francisco, Cal.	May 29
Jun. 9.	Refrigerating and Electric Light Plants, Ft. Huachuca, Ariz. Adv. May 15 to 29.	May 15
Jun. 9.	Boilers and Traveling Cranes, New Orleans, La. (2 Prop.) Adv. May 29, June 5.	May 29
Jun. 9.	Boilers, Etc., Elburn, Ill.	Jun. 5
Jun. 10.	R.R. Wk., Warren, Ariz.	May 29
Jun. 10.	Cement, Seattle, Wash.	May 29
Jun. 10.	Cement, New York, N. Y.	May 29
Jun. 10.	R.R. Work, Alaska	Jun. 5
Jun. 11.	Pier, Brooklyn, N. Y.	Jun. 5
Jun. 11.	**Elevator, Augusta, Ga.**	**May 22**
Jun. 11.	Supplies, Panama	May 29
Jun. 11.	El. Ry. Material, New York, N. Y.	May 29
Jun. 11.	Track Materials, Philadelphia, Pa.	Jun. 5
Jun. 12.	Locomotive Crane, Boston, Mass.	May 22
Jun. 12.	Cranes, Norfolk, Va.	May 15
Jul. 12.	Tunnel, Pittsburgh, Pa. Adv. Jun. 5.	Jun. 5
Jun. 14.	Stalls, Etc., for Market, New York, N. Y.	Jun. 5
Jun. 15.	El. Ry. Sect. No. 1, Brooklyn, N. Y. Adv. May 29, June 5.	May 29
Jun. 15.	Cranes, Norfolk, Va.	Jun. 5
Jun. 16.	Sprinkler System, Seattle, Wash.	Jun. 5
Jun. 16.	Lubricating Oils, Washington, D. C. Adv. Jun. 5.	Jun. 5
Jun. 17.	Ditch, Slayton, Minn.	Jun. 5
Jun. 22.	Iron, Steel, Etc., Washington, D. C.	Jun. 5
Jun. 24.	Garbage Disposal, Etc., Detroit, Mich.	Jun. 5
Jun. 26.	Sulphate of Alumina, Washington, D. C. Adv. Jun. 5.	Jun. 5
July 1.	Crane, Halifax, N. S.	May 22

Hollow Building Tile Manufacturers' Association Active

The Hollow Building Tile Manufacturers' Association of America, formed last December, has already made very marked progress in its work. Some of its members will co-operate with a committee of the American Society for Testing Materials in the formulation of tests and specifications for its material. In addition it has a committee working on a standard building code covering its material, in which work it is co-operating with the National Board of Underwriters. It has already formulated and adopted a code of business ethics, which is expected to go a long way toward establishing sensible conditions in the sales policies of the industry.

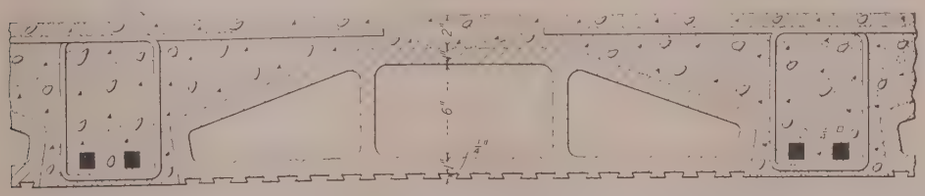
J. A. Maahs, general manager of the Pennsylvania Fireproofing Company, of Erie, Pa., is president, and Charles T. Harris, formerly general sales manager of Fisk & Company, New York, is secretary. Offices have recently been taken in the Brotherhood of Locomotive Engineers' Building, Cleveland.

Thin Wood Block for Indoor Uses Provides Against Bleeding

A wood block, especially devised for indoor pavements and floorings, claimed by its manufacturers to be proof against objectionable bleeding, due to its lighter saturation with preservative, has been put on the market by the American Creosoting Company, 17 Battery Place, New York City. The block is 2¼ in. deep, as compared to the ordinary block, which is made to 3 and 3½-in. depths, and lesser quantity of creosote oil is used. Blocks of this depth have withstood severe traffic tests on the Brooklyn and Williamsburg bridges over the East River, New York City, and it is claimed that they are so free from moisture that dry indoor conditions do not cause contraction. It is asserted that the saving in cost on the floor or pavement due to the lesser depth of block and quantity of preservative amounts to over 25 per cent.

New Type of Tile and Concrete Floor System

The accompanying drawing shows a new type of tile and concrete floor system, which has as its chief advantages the use of wide concrete joists, allowing full development of the strength of the tension reinforcement, and a compression flange so shaped that severe shearing stresses are not concentrated in one plane, thus justifying full use of the compression flange in figuring the carrying capacity. The tile, too, it will be noted, are of unusual size, 36 in. wide. They come in uniform lengths of 12 in., but in two heights, 8 and 10 in., the former for floors of 16-ft. and the latter of 20-ft. span.



IN THIS TYPE OF TILE AND CONCRETE FLOOR SYSTEM THE USE OF WIDE CONCRETE JOISTS IS ALLOWED AND THE COMPRESSION FLANGE IS FULLY USED IN FIGURING CARRYING CAPACITY

The cross-section shown is that for a 16-ft. span floor with a carrying capacity, including wood flooring and plaster, of 155 lb. per square foot, or a safe imposed load of 128 lb. per square foot. For the same carrying capacity on a 20-ft. span, tile 10 in. deep are used. The saving in dead-load weight in the floor system itself, as compared with a solid concrete floor of the same strength is evident. The centering, apparently, is very simple, thus further effecting a saving. A 2 x 12-in. plank is placed for each of the concrete joists, the adjoining tile on either side resting along the edges of the plank. There are no beam sides or slab forms to be provided. Simple posts on 44-in. centers support the 2 x 12's and are braced with light horizontals running at right angles to each other.

Patents have been applied for on the design, which was developed by Richard F. Barry. The Richard F. Barry Company, 53 Oliver Street, Boston, is handling the system.

Patented Method of Construction of Reinforced-Concrete Pipe

To secure economical construction in reinforced concrete which is claimed to be capable of efficiently resisting tensile stress without cracking, George Rae, of Brooklyn, has invented and patented a method of construction applicable to cylinders, pipe, columns, piles and standpipe. In brief, the system consists in a concrete shell or wall constructed first and allowed to shrink freely while setting and hardening. When sufficient hardness is acquired the circumferential steel is applied, preferably at a temperature sufficient on cooling to cause an initial stress in the steel, which induces compression in the concrete. When the interior working pressure is applied, the compression in the concrete is relieved and the tension in the steel is increased. The proper relation and magnitude of the initial stresses are determined from the working stress allowed in the steel and the ratios of areas and of moduli of elasticity of the steel and concrete. After the reinforcement is placed at the proper tension the steel is covered with a protecting layer of either gunite or concrete on heavy wire fabric. The interior concrete is preferably treated while green with neat cement to fill the pores, and when dry is waterproofed with hot asphalt, though it is claimed this is not necessary even for heads as great as 110 ft. if the concrete is rightly proportioned and properly handled.

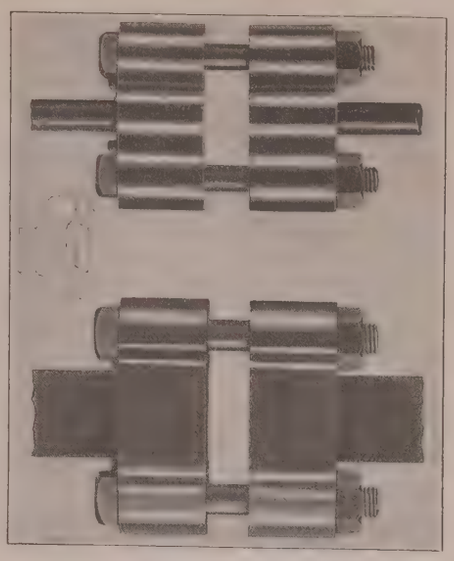
A New Interlock Band Connection

A new straight-pull interlock band connection has recently been brought out for wood-stave tanks, silos or pipes, for banding chimneys and similar structures, including sewers made of concrete or tile segments. It was invented by a chimney expert after much experience in banding cracked stacks, an operation requiring simplicity of band connection and rapidity of erection.

Two malleable iron recessed castings and two ordinary bolts are placed over adjacent ends of the band. The ends have return outward bends, making a hook fitting into a pocket or recess in the casting, as shown in the photograph. In erection on tanks the bands are placed on nails in the proper spacing in the ordinary way with the hooks outward. Then the lugs are set over the bands and slipped toward the end to seat the loop in the recess. The operation of inserting the bolts and drawing up the nuts requires but a few minutes' time at the most. Lugs on one of the castings prevent the bolt heads from turning. Otherwise the lugs are identical.

An ordinary bar bender for reinforcing steel may be used to bend the bands and the time consumed is to be compared with threading round bands or riveting castings on flat bands.

The recesses are made to fit the curve of the hooks of the various sizes and as all parts of the connection are covered and in tension the elements are excluded.



NEW INTERLOCK BAND FOR WOOD-STAVE PIPES AND TANKS IS EASILY ADJUSTED

Peter Drolshagen, Traders Building, Chicago, has patented the connection, which he calls the Perfection interlock band connection, and is placing it on the market for all commercial round and rectangular cross-sections.

Business Notes

James Beggs & Company, manufacturers of the Blackburn-Smith feed water filter and grease extractor, and the Beggs sewage ejector system have opened offices in Saginaw, Mich., and Cleveland, Ohio.

C. G. A. Schmidt, Jr., & Company, manufacturers' agents, Empire Building, Philadelphia, and Henry T. Pierce, also a manufacturers' agent, have combined under the firm name of the Pierce-Schmidt Company, Bulletin Building, Philadelphia.

W. C. Tyler, formerly superintendent for the Sandusky Portland Cement Company, at York, Pa., has opened an office in the Real Estate Trust Building, Philadelphia, for the purpose of engaging in business as a manufacturers' agent, under the firm name of W. C. Tyler & Company, handling a line of contractors' equipment.

E. W. Swartwout, formerly of the Chicago office of the Nordberg Manufacturing Company, manufacturer of engines, pumps and power plant machinery, of Milwaukee, will hereafter be associated with N. N. MacLaren in the New York City office of the company, at 120 Broadway. John E. Lord will be in charge of the Chicago office.

The Alexander Milburn Company, manufacturer of high-power portable lights and oxy-acetylene welding apparatus, with main offices and works at Baltimore, Md., has acquired the business of the Wells Light Manufacturing Company, of Jersey City, N. J., and will manufacture repair parts for outstanding Wells lights in its Baltimore factory. It will furnish complete Wells lights, where desired, in conjunction with the standard Milburn acetylene lights. The manufacture of the Wells preheating burner will also be continued and sold in connection with the Milburn oxy-acetylene apparatus.

Trade Publication

O. F. Jordan Company, Chicago. Booklet, 9 x 6 in., 24 pages, illustrated. Shows numerous views of spreaders at work, and contains descriptive matter of the machine and its various uses, together with a list of many of its largest users.

New Construction Activities

Railway equipment buying and structural orders for the first four weeks in June were light, while export steel orders continued heavy. The structural business for that week is estimated at a little over eight thousand tons, mostly in small lots. The Chicago lumber market has shown improvement, but mainly because of the demand from furniture factories, sash and door mills and car shops, trade being mostly in hardwood, and the new Chicago Drydock buying the only large structural order. Charters issued during May for new enterprises with a capital stock of over $100,000 totaled $124,041,000, as compared with $77,466,000 in April and $121,965,000 in May, 1914. Proposed projects involving construction are undoubtedly waiting to some extent on the issue of the difficulties with other nations into which this government has recently been drawn, and few people are venturing predictions as to whether an unfavorable turn would cause a panic among investors, on the one hand, or whether a favorable turn, on the other hand, would bring out any further marked improvement in advance of a decisive issue to the struggle in Europe. Certainly in view of the large bank deposits and reserves that have accumulated, investment in construction ventures is very light.

The opinion has been held that American capital is certain to find a large field in South America at, and possibly before, the close of the present war, and that it will take with it not only American goods and machinery, but also American contractors.

Buildings

Private building work continues slack, and most of the actual construction continues to be on publicly financed work. Several large private construction projects were reported last week, however. The contract for erecting a grammar school at Lawrence, Mass., was awarded at $209,000. A $250,000 apartment house has been contracted for at Philadelphia. A $125,000 factory has been contracted for at Marcus Hook, Pa. A $200,000 building contract has been awarded in Duluth. The school building contracted for at Huntington, W. Va., will cost $220,000, and additions to the school at Pocatello, Idaho, will cost $119,000, according to the lowest bid submitted. Bids are desired on a $100,000 hospital building in Brooklyn, on a $115,000 building at Barberton, Ohio, and on a $200,000 high school at Dallas, Tex. It is reported that the Bureau of Standards at Washington, D. C., will soon let a $200,000 contract for a chemical laboratory. Plans filed last week in New York City include those for a $1,000,000 apartment house and for a $400,000 office building. It is reported that a $200,000 building will be erected in Boston, Mass., and plans have been prepared for a $200,000 shop building at Wilkes-Barre, Pa. Plans are being prepared for a $400,000 Y. M. C. A. building at Cincinnati. A permit has been secured for a $350,000 apartment house in Cleveland, and plans for a $600,000 hotel are being prepared for the same owners. The site for a $500,000 library and museum has been secured by a historical society in St. Paul. It is reported that a $600,000 plate mill will be built at Gadsden, Ala. It is further reported from the Gulf States that a $5,000,000 ship building plant will be erected in Mobile by Chicago interests and that plans are to be prepared for a $750,000 grain elevator at New Orleans. The bond issue voted June 1 at Kansas City carried, in addition to funds for improvements noted below, $1,240,000 for municipal building construction.

Bridges and Roads

A $61,000 concrete bridge was contracted for at Waterbury, Conn., last week. Contracts totaling a little over $70,000 were awarded on the bridge at Lake Charles, La., bids for which were opened June 1. Bids are desired on three small steel bridges at Ribera, N. M., and on a 750-ft. highway bridge at Scotia, Cal. Bids are desired for a $120,000 draw bridge at San Francisco. The bond issue at Kansas City noted above carried $650,000 for bridge construction.

The State of Maine has awarded a $69,000 highway contract. Low bids on State road work, opened June 4 at Albany, N. Y., total more than $1,000,000. A paving contract for $165,000 on grade crossing work in Buffalo was awarded. Hackensack, N. J. has awarded an $89,000 paving contract. Sheridan, Ark., has awarded 28 miles of road construction at $104,000. Three paving contracts awarded in Dallas, Tex., total $130,000, and a contract for paving work to cost $260,000 was awarded at Corpus Christi, Tex. The State of California has awarded road contracts totaling over $100,000, and has opened bids on four other contracts which will cost $132,000. Bids are desired on two contracts for paving work by the Commissioners of the District of Columbia. Bids are desired at Selma, Ala., for building 13 miles of road. Bids are desired at Wellington, Kans., for 40,000 square yards of paving, and at Sandpoint, Idaho, for paving work to cost $60,000. An engineer has been selected to supervise the construction of roads for Greenville County, S. C., under a recent bond issue of $950,000. Paving work to cost $225,000 has been recommended at Seattle, and a $50,000 asphalt paving contract will soon be let by that city.

Waterworks and Sewers

The city of Newark, N. J. has contracted for $117,000 worth of cast iron pipe. The contract for the superstructure of a pumping station awarded at Cleveland totals $234,000. Bids are desired for constructing waterworks and pipe lines at Oakfield and at LeRoy, N. Y. Bids are desired at Lakeland, Fla., for waterworks and other improvements to cost $130,000. Bids are desired on waterworks, including a reservoir and pumping equipment, at Rittman, Ohio. It is reported that plans have been completed for the $1,500,000 pipe line to be built from Jersey City to Brookdale, N. J. The cities of Passaic and Montclair, N. J., have voted to join the $9,000,000 water shed development plan proposed under the State conservation act. Waterworks expenditures of $232,000 have been favorably reported to the City Council at Philadelphia. Coatesville, Pa., has sold $185,000 waterworks bonds, and East Liverpool, Ohio has sold bonds in the sum of $200,000 for waterworks improvements. It is also reported that $100,000 water bonds have been sold by Minneapolis.

The lowest bid opened last month on sewer work at Huntington, L. I., was $77,949. Contracts awarded at Rittman, Ohio, for a sewer system and disposal plant total $47,243. A $43,000 sewer contract has been awarded at Siloam Springs, Ark., and a $53,000 storm sewer contract has been awarded at Omaha, Nebr. Bids are desired for sewage disposal works at Greenwich, Conn. Plans are being prepared for a $300,000 sewer at Portland, Ore. Watertown, S. D. has sold sewer bonds in the sum of $88,000. The bond issue voted at Kansas City carried an appropriation of $900,000 for sewer construction. $865,000 has been voted at Imperial, Cal., for a sewer system, and El Centro, Cal., has voted a $250,000 sewer bond issue.

Miscellaneous

The United States Government has opened bids for structural steel lock gates for dams 12 and 20 on the Ohio River totaling over $50,000. A railroad construction contract has been awarded at Walnut Springs, Tex. Levee work on the Mississippi River at and below Memphis is active. Several contracts awarded call for moving over 8,000,000 yd. of earth fill for this work. Bids are desired for 700,000 yd. additional levee on one section, and for several smaller contracts. At McGhee, Ark., $110,000 has been voted for levee work. Bids are asked in New York City for constructing a new pier at the foot of 30th Street in Brooklyn. Bids are asked on drainage work involving nearly 2,500,000 cu. yd. of excavation at Bartow, Fla. Bids are asked for constructing an irrigation system at Eureka, Mont. The Board of Estimate of New York City has appropriated $80,000 for improving the Mill Creek Canal. The connecting railway of Kansas City has received authority from the State Public Service Commission to undertake railroad construction involving the rebuilding of the Kansas City stock yards and freight terminals connected with them which will cost $1,000,000. The Kansas City bond issue noted above carries an appropriation of $800,000 for constructing trafficways and other improvements. The Park Board of Kansas City will also receive $680,000 for various improvements under this bond issue. Bonds are to be sold for a $121,000 pier at Redondo Beach, Cal. It is reported that the United States Government has appropriated $100,000 towards the Medicine Creek dam at Lawton, Okla.

WATERWORKS

PROPOSED WORK.

Worcester, Mass.—Geo. W. Batchelder, Supt. and Water Comr., writes contracts have been let for supplies needed for the Pine Hill reservoir and pipe lines. Construction work to be done by city.

Hilton, N. Y.—Citizens voted to issue $49,000 bonds for water works. Bids for construction to be received about July 1. H. C. Kittredge, Engr., German Insurance Bldg., Rochester.

Jersey City, N. J.—J. Byers Holbrook, 52 Vanderbilt Ave., New York, has completed plans for proposed new pipe line to be laid from Jersey City to Brookdale, on the way to Boonton reservoir, and estimates cost at about $1,500,000. C. A. Van Keuren Ch. Eng. Streets and Pub. Improvements.

Contracting News

Of Special Interest to Engineers, Contractors, Builders and Manufacturers of Engineering and Building Supplies

Paterson, N. J.—At a meeting here June 7 the cities of Passaic and Montclair decided to join in the development of Manaque watershed under the State conservation plan. City of Newark made its application some time ago. Work will cost about $9,000,000.

Coatesville, Pa.—Bonds for $185,000 reported sold for construction of water works on Rock Run.

Morrisville, Pa.—Borough has been ordered by State Health Board to build a filtration plant to purify water; cost about $15,000.

Philadelphia, Pa. — The Council's Finance Com. reported favorably June 3 on appropriations as follows: Cold storage, stoker equipment and appliances, Queen Lane Pumping Station, including purchase of land, $80,000; renewal and replacement of pumping station equipment at Shawmont, Roxborough, High Service, Roxborough Auxiliary and Mt. Airy stations and purchase of automobile truck, $195,000; purchase of combination locomotive crane and improvements at Lardner's Point Pumping Station, $17,000; to protect water mains under tracks of Pennsylvania R.R., $25,000; improvements at Torresdale filters, $20,000; replacing wooden trestles under water mains with permanent structures, $15,000; laying mains in 10th, Oxford, Cambria Sts., Haverford Ave. and Byberry and Bensalem turnpikes, $75,000.

Baltimore, Md.—Specifications for pump for Eastern Pumping Station, to take place of one recently wrecked, are reported completed by Robt. L. Clemmitt,

Acting Water Engr.; it is to be an electrically driven centrifugal pump, 20,000,000 gal. daily capacity; cost about $25,000.

Covington, Va.—Citizens voted $25,000 bonds for water works.

Bluefield, W. Va.—Plans being prepared for municipal water works.

Covington, Ky.—J. Mason Howk, Comr. of Pub. Property, has recommended that bids be asked for c. i. pipe to be used in emergency main; all bids to be for delivery in Covington and at Wilder Station in Campbell County; it will require 996 tons Class C pipe, 2591 tons Class D pipe and 20 tons special castings.

East Liverpool, O.—Bonds for $200,000 sold for water works improvements. Chester & Fleming, Engrs., Pittsburgh, Pa.

Marietta, O.—J. W. Frye, Dir. of Pub. Service, writes no plans yet accepted for proposed reservoir.

Kohler, Wis.—Citizens reported to have voted to construct water works and a sewer system, from plans of J. Donahue.

Ames, Ia.—A water filter plant is to be constructed at Iowa State College this summer, to cost about $15,000.

Minneapolis, Minn.—Water bonds in the sum of $100,000 reported sold, to be used for new mains.

Robbinsdale, Minn.—Village Council considering issue of $15,000 bonds for constructing waterworks.

Fargo, N. D.—The Water and Light Comn. has recommended adoption of report of Edw. P. Burch, of Minneapolis, engaged to advise a permanent and adequate artesian water supply for city. He recommends erection of a 300,000-gal. steel tank on a 100-ft. steel tower, at site of pumping station in 2d Ward; installation of a pump at plant to pump from big tank; laying certain water mains and connecting dead ends in city; estimated cost $24,000.

Edgemont, S. D.—Citizens voted $30,000 bonds for water works improvements.

Whitehall, Mont.—About $30,000 will be spent for municipal water works and sewer system. Address Geo. E. Baker, City Engr.

Rockport, Mo.—W. W. Holliway, City Clk., writes that call for bids has been delayed on account not yet getting good wells. Hope to be ready to let contract in about a month.

Seattle, Wash.—See "Paving and Roads."

Salt Lake City, Utah.—Local press reports state bids desired by City Comn. June 15 for $300,000 water and sewer bonds.

BIDS DESIRED.

Le Roy, N. Y.—Until June 25 by Bd. Water & Light Comrs. (John Maloney, Pres.) for constructing dam, filtration plant, laying pipe, etc., advertised in Engineering Record. Jas. P. Wells, Engr., 408 Exchange Pl. Bldg., Rochester.

New York, N. Y.—Until June 14 by Wm. Williams, Comr. Water Supply, Gas and Electricity, for furnishing and delivering Venturi meter tubes and recording apparatus for connections from Catskill water supply.

Oakfield, N. Y.—Until June 24 by Village Trus. for constructing waterworks, advertised in Engineering Record. S. A. Ingalsbe, Village Clk.; H. C. Kittredge, Engr., Rochester.

Washington, D. C.—Until June 15 at Bureau Supplies and Accounts, Navy Dept., Washington, D. C., for delivering Portland cement, testing machine and centrifugal pump.

Lakeland, Fla.—About July 1 by J. R. Boulware, Secy. Bd. Bond Trus., for water works improvements and increasing electric light plant; cost $130,000. Engrs., Scofield Eng. Co., Philadelphia, Pa.

Farmersville, O.—A. F. Gilbert, Village Clk., writes that bids will be received about July 15 for purchase of $16,000 bonds for water works and fire protection and about July 20 for construction. Will use Triplex pumps, 250-gal. capacity; also either a tower or pneumatic system. Capacity about 40,000 gals.

Cincinnati, O.—Until June 18, by Director Pub. Safety (Edw. P. Durr, Secy.), to lay c. i. pipe, special castings, and valves and other miscellaneous work for high-pressure fire system in 8th St., Bway. and Reading Rd.

Rittman, O.—Until June 29 by Vance Hickin, Clk. Village Council, for constructing waterworks; also same time, separate bids for pumping equipment, both proposals advertised in Engineering Record. W. F. Peters, Engr., Medina; R. Winthrop Pratt, Consulting Engr., Hippodrome Bldg., Cleveland.

Chicago, Ill.—Until June 18 by W. B. Moorhouse, Comr. Pub. Wks., to furnish and deliver f.o.b. cars, City Pipe Yard, 2352 S. Ashland Ave., 20 24-in. gate valves.

Lincoln, Neb.—Until June 22 by Theo. H. Berg, City Clk., for erecting a 500-hp. water tube boiler, with chain grate stoker, at city water and light plant, advertised in Engineering Record.

St. Louis, Mo.—Reported desired until June 22 by Bd. Pub. Service (W. T. Findlay, Secy.) for 2595 tons 3 to 36 in. c. i. coated water pipe, 350 tons special castings, 297 stop tapping valves and 850 fire hydrants.

Tacoma, Wash.—Reported desired until June 17 by Jas. C. Drake, Comr. Light & Water, for furnishing and delivering f.o.b. cars, Tacoma, a 30 in. hydraulically operated gate valve of standard make.

Salt Lake City, Utah.—Reported desired until June 16 for constructing a 5,000,000 gal. reinforced concrete reservoir. Address K. A. Scheid, City Recorder.

PRICES AND LETTINGS.

★*Indicates award of contract.*

Newark, N. J. — Following bids for straight c. i. water pipe and special castings, for both the low and high pressure system, opened May 6 by Bd. Street and Water Comrs.:

★1206 tons 6 to 12 in. low pressure pipe, $22.34 per ton, and 65 tons special castings at $55, awarded to Standard Cast Iron & Fdry. Co., total cost, $30,517. Next 2 lowest bids: U. S. Cast Iron Pipe & Fdry. Co., $30,981; Warren Fdry & Machine So., $30,993.

★1505 tons 16 to 24 in. low pressure pipe, $21.84 per ton, 35 tons special castings, $54.50, awarded to U. S. Cast Iron Pipe & Fdry. Co., total $34,777. Next 2 lowest bids: Standard Cast Iron Pipe & Fdry. Co., $35,333; Warren Fdry Machine Co., $35,724.

★1310 tons 36 in. c. i. water pipe at $21.34 per ton, 50 tons special castings $55, to Standard Cast Iron Pipe & Fdry. Co., total $30,705. Next 2 lowest bids: U. S. Cast Iron Pipe & Fdry. Co., $31,152; R. D. Wood Co, $31,183.

★851 tons 6 and 12 in. cast iron high pressure pipe, $21.99 per ton, 50 tons special castings, to R. D. Wood & Co., total $21,713. U. S. Cast Iron Pipe & Fdry. Co., $22,011; Warren Fdry. Machine Co., $22,613.

★**Reading, Pa.**—Contract awarded by Reading Suburban Water Co. to Reading Contr. Co., for slow sand filter and storage dam at $7,000. W. B. Ahrens, Engr., 622 Court St.

★**Ridgway, Pa.** — Contract for constructing addition to present filter (bids opened June 1) awarded to Geo. I. Thompson & Co., Clearfield, at $4,310. F. W. Ward, Engr., Ridgway.

★**Cleveland, O.**—Contract for constructing superstructure of Division Ave. pumping station reported awarded June 4 by city to F. W. Mark Constr. Co., at $233,898.

★**Cleveland, O.**—Contract awarded to Builders' Iron Fdry., Providence, R. I., for one 30-in. and five 48-in. Venturi meters for Division Ave pumping station at $9,993.

★**Berwyn, Ill.**—Contract to furnish and lay water pipe awarded to T. H. Iglehart, Rookery, Chicago, at $35,342.

★**Crow Agency, Mont.**—Contract awarded May 29 by J. B. Houston, Depot Q. M., U. S. A., Washington, D. C., for water system at Custer Battlefield, National Cemetery, Crow Agency, Mont., to Coberth, Hanes & White Co., Washington, D. C., at $6,382.

San Diego, Cal.—Four lowest bids opened May 26, at the Bureau Yards & Docks, Navy Dept., Washington, D. C., for sewer and water system at Naval Radio Station, San Diego: Power Equipment Co., San Francisco, $10,650; Messmer & Rice, Los Angeles, $12,513; Holland Constr. Co., San Diego, $12,882; Isabel Constr. Co., San Diego, $12,885.

SEWERAGE AND SEWAGE DISPOSAL

PROPOSED WORK.

Portland, Me.—Washington Ave. sewer will be extended to Allen Corner, including new sewers in North Deering; cost $18,000.

Northampton, Mass.—City Finance Com. will recommend an appropriation of $10,000 for work of Sewer Dept., which includes sewer from Hospital Hill to West St.

Danbury, Conn.—Pub. Wks. Com. has decided to construct Crane and Osborne St. sewer through 9th Ave., to cost $10,900.

Camden, N. J.—City Council has passed ordinance providing for issue of $10,000 bonds for building experimental sewage plant.

Pitman, N. J.—Remington & Vosbury, Camden, completed report on proposed sewage disposal plant, and estimate cost at $91,000.

Lexington, Ky.—The Bd. of Health is reported to have recommended the appointment of Dean Walter E. Rowe and Prof. D. V. Terrell, of the State University, as consulting engineers to prepare a sanitary map of Lexington city together with plans and specifications for a sewage disposal plant.

Kohler, Wis.—See "Water Works."

Minneapolis, Minn.—Main line sewer bonds in the sum of $100,000 reported sold.

Watertown, S. D.—Bonds in the sum of $88,000 reported sold, to be used for construction of sewers.

Whitehall, Mont.—See "Water Works."

Kansas City, Mo.—Citizens voted $400,000 June 1 for development of city sewer system; and $500,0000 for public sanitary sewer in Blue River Valley.

Beaumont, Tex.—Citizens have voted $30,000 bonds for sewer extension.

Tulsa, Okla.—Election will soon be held to vote on issuing $100,000 bonds for additional sewers.

Enumclaw, Wash.—City Council considering construction of sanitary sewers in Cole, Well, Porter and Marion Sts., and Lincoln and Monroe Aves.; cost about $11,000.

Olympia, Wash.—Council reported to have decided to construct trunk sewer in Franklin St., at cost of $12,000.

Seattle, Wash.—A. H. Dimock, City Engr., estimates cost of constructing Ballard trunk sewer, at $408,654. Work includes 2852 lin. ft. 48-in. pipe; 2578 lin. ft. 78-in.; 1700 lin. ft. 72-in.; 2026 lin. ft. 66-in.; 2436 lin. ft. 60-in.; 2353 lin. ft. 18-in.; 3200 lin. ft. 6-in.; 5000 lin. ft. 8-in. sub-drain, etc.

Seattle, Wash. — See "Paving and Roads."

Zillah, Wash.—City Council considering construction of a sewer system.

LaGrande, Ore.—City Comrs. reported to have decided to construct sewers between G and L Sts., including a disposal tank.

Portland, Ore.—City Engr. reported to be preparing plans for reconstructing Tanner Creek sewer, from Washington St. to Williamette River; estimated cost $300,000.

El Centro, Cal.—Citizens voted to issue $250,000 bonds to build sewer system with outfall in New River.

Imperial, Cal.—Citizens voted $865,000 bonds for sewer system; it proposed to join with El Centro in laying a main from here to New River, paying 2-5 of the cost of section.

Salt Lake City, Utah.—See "Water Works."

Salt Lake City, Utah.—City Comn. is about to let contract for Sewer Extension No. 351 vitr. and concrete pipe 8 to 15-in.; cost about $33,381.

Moscow, Idaho.—Council has passed ordinance providing for construction of storm sewers on 3d St. to D St.

BIDS DESIRED.

Boston, Mass.—Until June 15 by Patk. O'Hearn, Acting Comr. Pub. Wks., for sewers in Temple, Hillcrest, Lorette and Elgin Sts., and outlets, West Roxbury; and until June 11 for pipe sewers and drains in Montmorence Ave., East Boston.

Greenwich, Conn.—Until June 21 by Sewer Comrs. (Wm. Wilson Heaton, Chmn.) for constructing sewage disposal works in East Port Chester, Conn., Sewer Dist. No. 9, advertised in Engineering Record. Sheldon E. Minor, Engr., Trust Co. Bldg., Greenwich Ave., Greenwich; Clyde Potts, Consulting Engr., 30 Church St., New York.

Scarsdale, N. Y.—Until June 22 by Sewer Comrs. (John R. Ross, Chmn.) for constructing extensions to sewers, about 23,500 lin. ft. 8 and 10-in. sewers, advertised in Engineering Record. Waring, Chapman & Farquhar, Engrs., 874 Bway., New York.

South Brownsville, Pa.—Reported desired until June 14 by T. A. Waggoner, Borough Secy., for about 2000 lin. ft. 8-in. terra cotta sewer 8 manholes and 3 lampholes. L. G. Moslener, Boro. Engr., Snowdon Bldg., Brownsville.

Canton, O.—See "Paving and Roads."

West Carrollton, O.—Until June 15 by H. J. Wilson, Village Clk., for furnishing material and constructing sewers in various streets and alleys.

Frankfort, Ind.—Until June 17 by City Clerk for 10,600 ft. of 6 to 15-in. pipe sewers, average depth 10 ft.; 175 house connections, 9 lampholes, 25 manholes, 4 flush tanks and 4 combined manholes and flush tanks; estimated cost $14,650. R. H. Boynton, City Engr.

Chicago, Ill.—Until June 17 by W. R. Moorehouse, Comr. Pub. Wks., to furnish and deliver at tunnel shaft, Wilson and Clarendon Aves., 1 motor-driven centrifugal pump; also three 2,000,000-gal. motor-driven centrifugal pumps with auxiliaries, etc., at Pullman Sewage Pumping Station, 109th Pl. and Illinois Central R. R.

Huntington, L. I., N. Y.—Thirteen bids opened May 14 by Comrs. of Sewer Dist. (C. M. Felt, Secy.) for constructing sewers and sewage disposal works, from plans of Geo. W. Fuller, 170 Bway., New York, ranging in price from $77,949 to $155,675.

★Following are unit prices of Engineer's estimate and 4 lowest bids: (a) Engineer's estimate, $76,339; (b) Frank Nordone, Mt. Vernon, $77,949 (awarded contract); (c) Fred E. Gross & Son, Yonkers, $79,302; (d) Lincoln-Steele Fleming Co., New York, $81,523; (e) Peter D'Amato, Newark, N. J., $86,530.

	Sewers and Appurtenances:	(a)	*(b)	(c)	(d)	(e)
4,400	lin. ft. 8-in. vitr. pipe sewers, 0-6 ft. cut	$0.46	$0.40	$0.46	$0.39	$0.35
48,375	lin. ft. 8-in., 6-8 ft. cut	.46	.42	.52	.49	.48
5,555	lin. ft. 8-in., 8-10 ft. cut	.65	.65	.73	.65	.65
2,845	lin. ft. 8-in., 10-12 ft. cut	.85	.80	.93	.80	.80
1,040	lin. ft. 8-in., 12-14 ft. cut	1.05	.95	1.22	1.07	1.05
245	lin. ft. 8-in., 14-16 ft. cut	1.30	1.10	2.00	1.34	1.50
50	lin. ft. 8-in., 16-18 ft. cut	1.60	1.50	2.60	1.60	2.25
310	lin. ft. 10-in., 0-6 ft. cut	.53	.50	.50	.46	.40
7,885	lin. ft. 10-in., 6-8 ft. cut	.53	.60	.60	.61	.55
855	lin. ft. 10-in., 8-10 ft. cut	.75	.75	.78	.72	.70
50	lin. ft. 10-in., 10-12 ft. cut	.95	.95	1.00	.87	1.10
680	lin. ft. 12-in., 0-6 ft. cut	.64	.65	.57	.62	1.00
1,205	lin. ft. 12-in., 6-8 ft. cut	.64	.73	.67	.72	1.50
120	lin. ft. 12-in., 8-10 ft. cut	.85	.85	.85	.78	2.00
35	lin. ft. 12-in., 10-12 ft. cut	1.05	1.00	1.20	.94	3.00
75	lin. ft. 12-in., 12-14 ft. cut	1.35	1.09	1.60	1.20	3.25
80	lin. ft. 12-in., 14-16 ft. cut	1.70	1.29	2.15	1.48	3.40
50	lin. ft. 12-in., 16-18 ft. cut	2.00	1.50	2.70	1.74	3.65
225	lin. ft. 15-in., 0-6 ft. cut	1.00	.75	.75	1.05	1.25
730	lin. ft. 15-in., 6-8 ft. cut	1.10	.94	.90	1.15	1.60
610	lin. ft. 15-in., 8-10 ft. cut	1.25	1.05	1.15	1.31	2.00
50	lin. ft. 15-in., 10-12 ft. cut	1.50	1.15	1.75	1.46	2.50
20,000	lin. ft. 8-in. vitr. pipe sewer with bituminous joints	.03	.05	.04	.02	.05
4,000	lin. ft. 10-in. vitr. pipe sewer with bituminous joints	.05	.06	.05	.04	.07
2,000	lin. ft. 12-in. vitr. pipe sewer with bituminous joints	.08	.07	.07	.05	.15
500	lin. ft. 15-in. vitr. pipe sewer with bituminous joints	.15	.08	.10	.06	.20
2,000	lin. ft. lay and trench 14-in. c.-i. pipe, 0-6 ft. cut	.75	.50	.50	.48	.75
2,500	5-in. Y-branches on 8-in. pipe	.50	.35	.30	.35	.40
365	5-in. Y-branches on 10-in. pipe	.69	.45	.40	.48	.60
90	5-in. Y-branches on 12-in. pipe	.85	.55	.50	.58	.75
60	5-in. Y-branches on 15-in. pipe	1.00	.65	.65	.88	1.00
2,000	5-in.-⅛ bends	.23	.25	.25	.30	.40
400	5-in. double Y-branches, including caps.	.50	.50	.25	.54	.50
1,500	lin. ft. 5-in. vitr. pipe risers	.50	.45	.30	.46	.35
55	flush tanks and appurtenances	70.00	65.00	65.00	72.00	70.00
240	manholes and appurtenances	40.00	37.00	38.00	39.00	36.00
90	tons c.-i. pipe	25.00	24.00	30.00	30.00	38.00
1	ton c.-i. specials	60.00	59.00	60.00	75.00	60.00
10	cu. yds. rock excav	3.00	3.00	5.00	3.00	4.00
100	cu. yds. extra earth excav	.60	1.00	1.00	2.00	1.00
200	cu. yds. extra earth filling	.50	.75	.50	.50	.40
20	cu. yds. extra broken stone or gravel fill.	2.00	1.85	2.00	3.00	2.00
20	cu. yds. concrete for sewer system	10.00	6.00	8.00	7.00	7.00
1	M ft. lumber for foundations	32.00	35.00	50.00	60.00	40.00
500	lin. ft. piles	.50	.60	.50	.75	.50
10	M ft. sheathing left in place	32.00	31.00	35.00	35.00	38.00
250	sq. yds. relaying of cement walks	1.35	1.80	1.80	1.80	1.35
20	sq. yds. relaying of wood block pavement with concrete base	3.50	1.90	2.00	3.00	2.00
900	sq. yds. relaying of flag stone walk	.20	.15	.50	.60	.27
4,000	sq. yds. relaying of bituminous macadam pavement	.60	1.60	.30	.70	.45
2,000	lin. ft. 1-in. galv. iron pipe line	.25	.18	.25	.15	.25
	Sewage Disposal Work:					
	Settling tank and appurtenances (lump sum)	5,100.00	5,044.00	6,000.00	7,327.00	8,500.00
	Storage tank and appurtenances (lump sum)	2,500.00	2,480.00	1,635.00	3,475.00	5,500.00
	Building sterilizing devices and appurtenances (lump sum)	2,200.00	2,720.00	2,000.00	2,498.00	2,500.00
	Sludge drying bed and appurtenances (lump sum)	300.00	1,500.00	1,500.00	254.00	360.00

Cedar Falls, Ia.—Reported desired until June 14, T. M. Aitkin, City Clk., for constructing storm sewers in portions of various streets.

Lake Mills, Ia.—Until June 14 by O. N. Styne, Town Clk., for constructing system of sanitary sewers and disposal plant. M. Tschirgi & Sons, Engrs., American Trust Bank Bldg., Cedar Rapids.

St. Paul, Minn.—Reported desired until June 14 by Aug. Hohenstein, City Purchasing Agt., for constructing sewers in Glenham, Maplewood, Medford and Otto Aves.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**New York, N. Y.**—Contracts awarded for constructing sewers in Bronx Boro, as follows: Plimpton Ave., bet. Boscobel Ave. and Featherbed Lane, Tony Lapadula, 334 Court St., Brooklyn, $9,798; W. 238th St. and Putnam Ave., to Danl. J. Donelin, 147 E. 125th St., $3,008; W. 234th St., bet. Spuyten Duyvil Rd. and Kingsbridge Ave., Michl. Marrone, 658 E. 221st St., $10,875.

★**Oswego, N. Y.**—Contract awarded for construction of 5 sewers to Arthur J. Shaw, Batavia; total, $22,529. Work includes 1789 ft. 36, 33, 30, 24, 22 and 20-in. vitr. tile segment block sewers and 23,726 ft. 18, 15, 12, 10 and 8-in. vitr. tile sewers; 497 Y-branches, 35 manholes, 14 flush ends. Chas. W. Lindsley, Comr. of Pub. Wks.

★**Rittman, O.**—Following are totals of 4 lowest bids opened May 25 for constructing sewer system: Shullo Bros. & Nickeles, Canton, $18,198 (awarded contract); E. M. Scheflow, Elgin, Ill., $19,998; Wm. H. Hunt & Son, Akron, $20,661; McLaughlin Contr. Co., Pittsburgh, Pa., $20,764. W. F. Peters, Engr., Medina. R. Winthrop Pratt, Consulting Engr., Hippodrome Bldg., Cleveland.

★Unit prices of Shullo Bros. & Nickeles, Canton, successful bidder:

Earth Excav. in Trench.	
500 cu. yds. 4-6 ft. cut	$0.20
6,260 cu. yds. 6-8 ft. cut	0.20
6,450 cu. yds. 8-10 ft. cut	0.25
5,210 cu. yds. 10-12 ft. cut	0.30
1,750 cu. yds. 12-14 ft. cut	0.40
10 cu. yds. 14-16 ft. cut	0.40
780 cu. yds. 16-19 ft. cut	0.50
840 cu. yds. 19-22 ft. cut	0.50
Vitr. Pipe in Place.	
3,480 lin. ft. 6 in	0.20
19,950 lin. ft. 8 in	0.27
2,804 lin. ft. 10 in	0.30
1,815 lin. ft. 12 in	0.33
655 lin. ft. 15 in	0.35
"Y" Branches.	
133 6-in. pipe, 6 in. ea	0.39
715 8-in. pipe, 6 in. ea	0.48
103 10-in. pipe, 6 in. ea	0.63
72 12-in. pipe, 6 in. ea	0.75
23 15-in. pipe, 6 in. ea	0.96
Manholes.	
4 4-6 ft. deep, ea	20.00
32 6-8 ft. deep, ea	30.00
27 8-10 ft. deep, ea	33.00
15 10-12 ft. deep, ea	40.00
7 12-14 ft. deep, ea	46.00
3 14-16 ft. deep, ea	49.00
0 16-19 ft. deep, ea	50.00
1 19-22 ft. deep, ea	57.00
Flush tanks.	
1 4-6 ft. depth	65.50
1 6-8 ft. depth	65.50
1 8-10 ft. depth	69.50
1 10-12 ft. depth	73.50
1 12-14 ft. depth	73.50
1 14-16 ft. depth	75.50
1 16-19 ft. depth	78.50
1 19-22 ft. depth	81.50
4½ tons c.-i. bell and spigot pipe	32.00
10 cu. yds. concrete	8.50
Sheeting left in place, per M ft	35.00
Rock excav., per cu. yd	4.50
Stone or gravel fill in trenches per cu. yd.	5.50
Repairing brick pavt., per sq. yd	2.00

Glencoe, Ill.—Bids were opened May 18 by Bd. Local Improv. for sanitary sewers in Crescent Drive, from plans of Windes & Marsh, Winnetka. Following are totals of 4 lowest bids with Engineer's estimate: Wm. Davidson, 703 Park Ave., Wilmette, $29,959; F. E. Keminski, Watertown, Wis., $30,768; Johnson & Thomsen, 944 Washington Ave., Racine, Wis., $31,041; Monahan Bros., 19 S. La Salle St., Chicago, $31,530; Engineer's estimate, $34,337.

★Following are unit prices of Wm. Davidson, who was awarded contract June 1:

10,588 lin. ft. 8-in. vitr. salt glazed hub and spigot sewer pipe, 11 ft. deep	$1.30
496 lin. ft. 8-in., 13.5 ft. deep	2.50
440 lin. ft. 8-in., 21 ft. deep	4.00
1,390 lin. ft. 8-in., 26 ft. deep	5.00
65 brick masonry manholes with c.-i. covers and rims weighing 480 lbs	48.00
260 lin. ft. 8-in. iron sewer pipe covered with frost jackets and supported on bridges and piles	1.50
1 connection to manhole of Sanitary Dist. of Chicago	35.00

Rittman, O.—Thirteen bids were opened May 25 for sewage treatment plant, ranging in price from $29,056 to $36,030. W. F. Peters, Engr., Medina. R. Winthrop Pratt, Consulting Engr., Hippodrome Bldg., Cleveland.

★Following are unit prices of 4 lowest: (a) C. A. Pierce, Rittman, $29,046 (awarded contract); (b) Pitt Constr. Co., Pittsburgh, Pa., $32,206; (c) T. Wildeson & Son, Mansfield, $32,332; (d) Kent Constr. Co., Kent, $32,363.

	*(a)	(b)	(c)	(d)
5,214 cu. yds. earth excavation	$0.30	$0.60	$0.65	$0.39
3,342 cu. yds. rolled embankment	0.10	0.20	0.10	0.15
446 cu. yds. plain concrete	8.25	8.00	6.50	7.82
290 cu. yds. reinforced concrete	11.50	12.00	15.00	17.80
6,900 cu. yds. filter material, Class "A" sand	1.53	1.60	1.80	1.70
1,220 cu. yds. filter material, Class "B" gravel	1.85	1.80	1.80	2.00
4,660 lin. ft. vitr. pipe, 4 in	0.08	0.10	0.12	0.07
408 lin. ft. vitr. pipe, 6 in	0.12	0.15	0.16	0.13
372 lin. ft. vitr. pipe, 8 in	0.16	0.20	0.20	0.18
268 lin. ft. vitr. pipe, 10 in	0.22	0.25	0.28	0.22
1,355 lin. ft. vitr. pipe, 12 in	0.65	0.30	0.30	0.26
500 lin. ft. vitr. pipe, 15 in	0.84	0.40	0.40	0.47
1,200 lin. ft. drain tile, 4 in	0.04	0.05	0.10	0.06
2 brick manholes with appurtenances	50.00	35.00	35.00	26.00
35 tons c.-i. B. & S. pipe	37.00	60.00	40.00	60.00
80 lin. ft. w.-i. pipe, 1½ in	0.75	0.50	0.10	0.25
100 lin. ft. w.-i. pipe, 1 in	0.50	0.30	0.10	0.22
Gate valves and shear gates (lump sum)	800.00	650.00	681.75	18.00
Miscellaneous iron and wood work (lump sum)	1,000.00	1,000.00	698.60	932.00
Controlling apparatus (lump sum)	625.00	600.00	750.00	700.00
Pumps and pumping equipment (lump sum)	1,000.00	1,300.00	1,217.50	1,300.00
Pump house (lump sum)	500.00	1,000.00	407.75	700.00
Additional reinforc. steel (per lb.)	0.06	0.03	0.03	0.04
Additional lumber (per M ft.)	70.00	30.00	40.00	50.00
Sheeting and shoring in place (per M ft.)	40.00	25.00	35.00	45.00

Siloam Springs, Ark.—Eighteen bids opened May 12 for construction of sanitary sewers, from plans of Winters & Dove, Engrs., Ft. Smith, ranging in price from $43,711 to $60,484.

★Unit prices of 4 lowest bids: (a) Everett & Burt, Hutchinson, Kan., $43,711 (awarded contract): (b) Bash & Janes, Joplin, Mo., $45,400; (c) Pouncey Paving & Constr. Co., Memphis, Tenn., $45,496; (d) Sutherlin Constr. Co., Kansas City, Mo., $46,011.

	*(a)	(b)	(c)	(d)
For Furnish. and Lay.				
3,000 ft. vitr. pipe sewer, 15 in	$0.50	$0.47	$0.50	$0.55
4,100 ft. vitr. pipe sewer, 12 in	0.32	0.34	0.35	0.36
5,500 ft. vitr. pipe sewer, 10 in	0.24	0.26	0.28	0.235
26,900 ft. vitr. pipe sewer, 8 in	0.18	0.20	0.16	0.19
16,800 ft. vitr. pipe sewer, 6 in	0.12	0.13	0.12	0.15
900 ft. 6 on 8-in. Y's	0.40	0.55	0.30	0.69
500 ft. 6 on 6-in. Y's	0.30	0.35	0.25	0.45
264 ft. 10-in. c.-i. pipe	1.25	1.20	2.00	0.85
72 ft. 8-in. c.-i. pipe	1.00	0.90	1.50	0.80
96 ft. 6-in. c.-i. pipe	0.75	0.60	0.90	0.70
For Ecav. and Refill.				
12,800 ft. 0-4 ft. trench	0.10	0.13	0.16	0.11
29,100 ft. 4-6 ft. trench	0.15	0.17	0.17	0.14
7,500 ft. 6-8 ft. trench	0.20	0.20	0.25	0.21
1,800 ft. 8-10 ft. trench	0.35	0.30	0.40	0.28
200 ft. 10-12 ft. trench	0.50	0.65	0.60	0.45
200 ft. 12-14 ft. trench	0.75	0.87	0.80	0.75
100 ft. 14-16 ft. trench	1.00	1.06	1.00	0.95
For Building.				
136 standard manholes	22.00	30.00	26.50	28.30
120 ft. additional depth of manhole	2.50	3.00	3.00	4.00
12 flush tanks	60.00	65.00	50.00	62.50
40 lampholes	10.00	7.00	5.00	7.00
25 cu. yds. extra concrete	10.00	7.00	12.00	8.00
3,000 cu. yds. excav. rock in trench	3.00	2.25	3.00	2.70
500 cu. yds. excav. earth at disposal plant	0.40	0.40	0.30	0.40
600 cu. yds. excav. rock at disposal plant	2.00	1.50	1.50	2.00
1 M ft. sheeting left in trench	20.00	12.00	20.00	39.00
100 cu. yds. place earth in embankment	0.30	0.40	0.30	0.45
Disposal plant, complete	8,000.00	9,200.00	7,650.00	9,150.00

★**Omaha, Neb.**—Contract awarded by City Council to J. J. Hanighen for constructing storm water sewer through Miller Park, at $53,495.

Anaconda, Mont.—See "Paving and Roads."

★**Argenta, Ark.**—Contract awarded to Moreno, Brooks & Burkham of St. Louis, Mo., for sanitary sewers in east section in Sewer Improv. Dist. No. 1, at about $10,000.

★**American Falls, Idaho.** — Contract awarded by City Council to S. A. Forter, American Falls, for construction of 4 miles of sewer at $22,416.

BRIDGES

PROPOSED WORK.

Lowell, Mass.—City Council voted to issue $80,000 bonds for constructing bridge at Pawtuckettville. Wm. M. Demaine, Engr., Springfield.

Barnsboro, N. J.—Bridge over Run at Tyler's Mill near Barnsboro is to be replaced with concrete structure; cost about $6,000.

Cape May, N. J.—Bd. Freeholders authorized bond issue of $32,000 for constructing bridge.

Phoenixville, Pa.—Plans and specifications desired until June 21 for a steel girder and an inter-county bridge over Schuylkill River between Phoenixville and Mt. Clair. Address County Comrs., at Norristown.

Baltimore, Md.—All bids opened by Bd. Awards for constructing bridge over Western Maryland tracks at Bentalou St. have been rejected. According to reports, new bids will be received.

Milledgeville, Ga.—Plans being considered for constructing steel bridge over Oconee River between Washington and Wilkinson Counties; cost about $25,000.

Palisade, Minn.—R. G. Sanford, Town Clk., writes it is proposed to construct a bridge over Mississippi River opposite Palisade; it will probably be of lift type on concrete foundation, and cost $9,000.

Hardin, Mont.—Bd. County Comrs. appropriated $5,000 and $10,000 toward constructing steel bridges over Tongue River at Wyola and Little Horn River on Sarpy Rd., respectively.

Kansas City, Mo.—Citizens June 1 voted $450,000 bonds for bridges and viaducts and $200,000 for approaches to 12th St. viaduct.

Los Angeles, Cal.—Plans are being prepared by Bd. Public Utilities for 4 viaducts to be constructed over railroad tracks at Macy, 1st, 4th and 7th Sts., respectively; cost about $3,500,000. City, county and street railway companies to share cost of improvement.

BIDS DESIRED.

Grove City, Pa.—Until June 21 by County Comrs., at Mercer (H. C. Comstock, Clk.), for furnishing material and constructing Pine Ave. Bridge over Wolf Creek, Boro. Grove City; also for piling in place and constructing abutments of either stone or concrete for said bridge. Lewis E. Burnside, Co. Engr., Grove City.

Williamsport, Pa.—Reported desired until June 25 by A. P. Zuber, Clk. Co. Comrs., for 5 stone arch bridges 10 ft. to 24 ft. spans, 3 concrete steel bridges 24 to 40 ft. spans, and placing steel floor beams and joists and new floor on 287 ft. bridge.

Superior, Wis.—Reported desired until June 16 by C. J. Morrisset, Co. Highway Comr., East End, Superior, for 60 ft. span steel truss bridge with concrete deck and abutments.

Cumberland, Md.—Until June 19 by Co. Road Dirs. (J. T. Edwards, Pres.), for furnishing material and constructing a a steel bridge 16 ft. clear width, 70 ft. long, c. to c. to replace old steel bridge spanning canal at Virginia Ave. and removing old bridge and 4 cap stones, about 8 miles to Dickens Mill and placing each cap stone in 1 cu. yd. 1-2-4 cement mortar; erecting said old bridge over Evitts Creek and giving all steel one coat of paint. D. P. LeFevre, Co. Roads Engr.

Bethel, O.—Reported desired until June 15 by L. B. Eylor, Co. Aud. at Waverly, for 123 ft. span steel bridge over Sun Fish Creek, Bethel.

Sidney, O.—Reported desired until June 15 by County Comrs. for constructing a concrete arch over Panther Run Creek, Cynthiana Township.

Illinois.—Until June 16 by State Highway Comn., Springfield, for bridge work as follows:

County	Sect.	Cu. Yds. Concrete	Engineer's Estimate of Total Cost of Work
Perry	A	293.5	$5,100
Gallatin	A	227.6	2,786
Gallatin	B	143.3	1,873
Randolph	B	433.6	6,027

Indianapolis, Ind.—Until June 21 for constructing a 100-ft. reinforced concrete arch bridge; bridge to be faced with and trimmed with Bedford stone and granite. J. T. Jeup, City Engr.

St. Louis, Mo.—Reported desired until June 29 by Bd. Pub. Service (Wm. T. Finlay, Secy.) for furnishing about $1,000,000 worth of steel for east approach of Free Bridge.

Ribera, N. M.—Until June 15 by Bd. County Comrs. (Lorenzo Delgado, Clk.), at Las Vegas, for constructing 110-ft. steel bridge on steel tubes, with 2 31-ft. approaches, 16-ft. roadway, at Ribera over Rio Pecos.

San Francisco, Cal.—Until June 23 by Bd. Pub. Wks., for constructing a Strauss Trunnion bascule bridge across Channel St. waterway, to have a span of 90 ft., 40 ft. roadway, with a double street railway track in the center. Probable cost $120,000.

Scotia, Cal.—Reported desired until June 15 by County Superv., at Eureka (F. M. Kay, Clk.), for cable suspension bridge, main span 750 ft.; also bids for steel bridge with 2 324-ft. spans. Said bridge to be erected over Eel River.

Brownhill, Ont.—Until June 18 by Frank Barber, Engr., 57 Adelaide St. E., for constructing 40-ft. span, reinforced concrete bridge, being the third bridge south of Brownhill over Toole's Creek, on boundary road between York and Ontario Counties, known as Toole Bridge.

Toronto, Ont.—Until June 15 by T. L. Church (Mayor), Chmn. Bd. Control, for constructing Strachan Ave. Bridge over C. P. R.R. tracks. Bids desired on steel superstructure; also concrete masonry substructure and concrete floor.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Enosburg Falls, Vt.**—Contract for constructing concrete bridge (bids opened June 5) awarded to Hynes Contr. Co., of Wales, Mass., at $8,965. F. W. Spicer, Chmn. Bd. Selectmen.

★**Waterbury, Conn.**—Contract awarded by Bd. Pub. Wks. to remove steel bridge at Bank St. and rebuild on new abutments at Freight St., to Spaulding Constr. Co., Suffield, at following bid: remove, rebuild and paint steel bridge (lump sum) $5,950, 15 M. ft. Georgia pine plank, $55; 5 M. ft. spruce plank, $45; total $7,000. Other bids: Hudson River Co., Inc., New York, $9,000; C. A. Sibley, New Haven, $9,560; McHarg Barton Co., New York, $11,800.

★**Buffalo, N. Y.**—Contract awarded to Lathrop, Shea & Henwood, of Buffalo, at $155,000, for masonry, paving and other work necessary for constructing viaduct over Pennsylvania R.R., under Lehigh Valley R.R. and Lackawanna & Western R.R. Edw. B. Guthrie, Ch. Engr. Grade Crossing Comn.

★**Waterbury, Conn.**—Following 4 lowest bids opened June 1 by Bd. Pub. Wks. for constructing a 3-span reinforced concrete arch bridge across Naugatuck River at Bank St.: (a) Hudson River Co., 149 Bway., New York, $61,337 (awarded contract); (b) Barsaghi Vought Co., Inc., 299 Madison Ave., New York, $62,870; (c) Robt. Daley Co., New Haven, $66,091; (d) Fred T. Ley & Co., Inc., Springfield, Mass., $70,455.

	*(a)	(b)	(c)	(d)
2,067 cu. yds. exc. bridge abut. and piers to el. 110	$1.15	$1.25	$0.50	$1.50
1,422 cu. yds. exc. bridge abut. and piers below el. 110.	2.30	3.00	0.50	3.00
1,540 cu. yds. concrete masonry, 1-3-6	7.50	5.00	8.00	7.00
428 cu. yds. concrete masonry, 1-2½-5	8.30	6.00	10.00	7.00
908 cu. yds. concrete masonry, 1-2-4	9.20	12.00	10.00	12.00
60 cu. yds. concrete masonry, 1-2-4 1-in. stone	9.50	12.50	25.00	15.00
Parapet walls moulding and curbing (lump sum)	9,055.00	9,025.00	7,000.00	9,600.00
70 cu. yds. pier ends and coping	61.50	60.00	3,955.00	65.00
113 tons steel reinforcement, 1 sq. in	50.00	45.00	80.00	56.00
20.5 tons steel reinforcement, ¾ sq. in	50.00	48.00	75.00	56.00
3 ton steel reinforcement, ½ sq. in	50.00	50.00	80.00	66.00
890 sq. yds. wire mesh reinforcement	0.45	0.40	0.35	0.50
360 sq. yds. brick sidewalk	2.00	1.50	1.00	1.85
Iron conduit and boxes (lump sum)	125.00	500.00	100.00	125.00
40 M ft. wood sheet piling	50.00	70.00	55.00	60.00
12.0 M ft. timber grillages	45.00	50.00	50.00	60.00
670 lin. ft. drain tile, 6 in	0.25	0.25	0.20	0.40
Const. and remove temporary bridge (lump sum)	3,105.00	3,500.00	6,600.00	3,650.00
6,000 lin. ft. rd. timber piling, 12-20 ft. long	0.25	0.25	0.20	0.30
6,000 lin. ft. rd. timber piling, 20-30 ft. long	0.25	0.25	0.20	0.30
980 cu. yds. excav. ret. wall	0.35	1.50	0.50	2.30
475 cu. yds. rubble masonry	2.50	4.00	5.00	3.60

★**Canton, N. Y.**—Contracts for constructing Morley Bridge and Grannis Brook Bridge awarded by Town Bd. to Groton Bridge Co., Groton, Conn., at $8,232. Bids opened May 28.

★**Wallkill, N. Y.**—Three lowest bids opened by J. Grant Upright, Town Supt. Highways, for constructing bridge over Wallkill River submitted by Rennell Constr. Co., New York, $24,326 (awarded contract); Thomson, Wooster Co., Walden, $24,870, and Woolsey Constr. Co., Poughkeepsie, $24,950. Concrete Steel Eng. Co., New York, Designing and Consulting Eng.

★**Harrisburg, Pa.**—Contract awarded by Co. Comrs. for constructing reinforced concrete earth filled arch bridge over Wiconisco Creek at Lykens, to G. W. Ensign, Inc., Harrisburg, at $4,516 (bids opened June 4).

Roanoke, Va.—Lowest bid opened for repairs to Virginia Ave. Bridge submitted by Virginia Bridge & Iron Co., Roanoke, at $6,400. City, county and street railway company share cost.

Lake Charles, La.—Bids opened June 1 by Highway Dept. for constructing a reinforced concrete arch bridge with a double-leaf Strauss trunnion bascule span, over Calcasieu River, near Lake Charles. Contracts awarded as follows (F. H. Frankland, Bridge Engr.):

★Six reinforced concrete arches to Missouri Valley Bridge & Iron Co., Leavenworth, Kan., and the Fruin-Colnan Contr. Co., St. Louis, Mo. (combined bid), as follows: 1544 yds. 1:2:4 concrete, $12.60; 1846 yds. 1:3:6 concrete, $11.60; 161,360 lbs. steel reinforcement, 3 cts.; 14,240 ft. wooden piling, 50 cts.; 1465 sq. yds. bituminous pavt., 75 cts.; total, $53,924.

★Fabrication of steel work and machinery of the double-leaf trunnion bascule span, to the Federal Bridge Co., Wauesha, Wis., 168,000 lbs. structural steel, 3.65 cts.; 22,500 lbs. machinery 10 cts.

★Erection to Missouri Valley Bridge Co., Leavenworth, at lump sum bid of $9,532.

The above bridge consists of 6 reinforced concrete 2-ribbed arches of 96-ft. clear span ea., spandril columns supporting concrete deck paved with bituminous concrete. Roadway 20 ft. wide; 1 approach concrete girder span on the south of 36-ft. clear span. An electrically operated double leaf channel span paved with creosoted wood blocks.

★Contract awarded by Highway Dept., Bd. State Engrs., New Orleans (Frank M. Kerr, Ch. Engr.), to Missouri Valley Bridge & Iron Co., Leavenworth, Kan., at $52,000 (bids opened June 1), to construct approach to Calcasieu River Bridge, being a section of Lake Charles-West Lake Highway, Calcasieu Parish.

★**Canton, O.**—Contract for constructing bridges, bids opened May 28 by County Comrs., awarded as follows: W. Tuscarawas St., Coshocton Constr. Co., Coshocton, $10,146; 8th St. N. E., superstructure, Lackawanna Bridge Co., Buffalo, $3,740; 8th St. N. E., substructure, Cox & Glass, Kensington, at $9,143. C. L. Stoner, Co. Clk.

Cincinnati, O.—Following 4 lowest bids opened June 1 by Bd. Pub. Service (F. S. Krug, Ch. Engr.) for constructing Park Ave. bridge over Kemper Lane: D. P. Foley, $125,355; A. J. Yawger, $136,294; Ohio Valley Contr. Co., $142,429; Roos Bros., $143,875.

★**Chicago, Ill.** — Contracts reported awarded by Union Station Co. (Thos. Rodd, Ch. Engr.), 521 W. Adams St., for constructing a trunnion bascule bridge over south branch of Chicago River at W. Monroe St. as follows: To Fitzsimons & Connell Dredge & Dock Co., Chicago, for dredging, pile driving and substructure work; for steel work and erect main superstructure, to Ketler-Elliott Constr. Co., and electrical work, to Pierce Electrical Co. Contractors all of Chicago (bids opened June 1).

Green Bay, Wis.—Lowest bid opened May 29 for repairing Main St. bridge was that of Greiling Bros., Green Bay, at $20,425. Work includes creosoted timber planking and wood block, 2 coats of paint for steel work; also steel installed at 7 cts. per lb.

Tumwater, Wash.—Lowest bid opened by Co. Comrs., June 1, at Olympia, for constructing concrete bridge over Tumwater Creek submitted by H. S. Wright, Everett, at $13,444.

PAVING AND ROADS

PROPOSED WORK.

Westville, N. J.—City Council contemplate spending about $50,000 for street improvements.

Greenville, S. C.—P. F. Patton, Hendersonville, N. C., has been selected as supervising engineer for road work to be constructed in Greenville County under bond issue of $950,000.

Newport, Tenn.—Road bonds in the sum of $200,000 will be opened June 22 by County Pike Comn. (Everett Greer, Secy.).

Murray, Ky.—Citizens Calloway County voted $300,000 bonds for constructing roads.

Chillicothe, O.—H. M. Redd, City Engr., has been instructed to prepare plans and estimates for cement sidewalks, curb and gutters on E. 2d and N. Shugar Sts.

Wellington, O.—About $12,000 Penfield Township road bonds have been sold.

Bedford, Ind.—Bonds in sum of $31,000 for constructing gravel roads in Lawrence County have been sold by County.

Indianapolis, Ind.—Bd. Pub. Wks. voted to pave Keystone Ave., New Jersey St. and Kentucky Ave.; cost about $25,392.

Fairmont, Minn.—Citizens voted $60,000 bonds for street improvements.

New Ulm, Minn.—All bids opened June 1 for furnishing and delivering a 10-ton, single cylinder, 3-wheel, horizontal gasoline road roller have been rejected. Address, F. D. Minium, City Engr.

Fremont, Neb.—City Council voted to pave 2½ miles streets.

Omaha, Neb.—Council passed ordinance creating paving districts along 13th and Pacific Sts., to be repaved, or present stone surface relaid.

Laurel, Mont.—O. H. Bundy, City Clk., writes City Council is considering paving of Main St. with bitulithic about 14,500 sq. yds. on gravel foundation; cost about $32,000.

Laurel, Mont.—City Council voted to pave 14,500 sq. yds. with bitulithic in Improvement Dist. No. 15. Bids are about to be received.

Livingston, Mont.—City Council voted to construct cement sidewalks on Front and 6th Sts.; cost $10,000.

Kansas City, Mo.—Citizens June 1 voted following bonds: $450,000 for constructing 6th St. trafficway; $300,000 23d St. trafficway; $25,000 Chestnut Ave. trafficway; $25,000 widening Brook St.

Springfield, Mo.—Springfield Traction Co. contemplate paving Booneville St.; cost $60,000. A. F. Van Deinse, Gen. Mgr.

Beaumont, Tex.—Citizens voted $85,000 bonds for street improvements.

Terrell, Tex.—Comrs. Court sold $300,000 bonds for road improvements.

Bellingham, Wash.—Contract is about to be let by City Council for grading, filling, constructing 5-ft. concrete sidewalks on Indian, "F," Utter, Jager Sts.

Chehalis, Wash.—Contract is about to be let for macadamizing 1 mile Pacific Highway across Jackson Prairie. Work will be carried on by State Highway Bd., Olympia, and County Comrs.

Enumclaw, Wash.—City Council voted to pave Cole St. and repave Griffin Ave.

Mt. Vernon, Wash.—Bd. County Comrs. voted to construct 2½ miles concrete road along Skagit Valley east from Sedro Wooley.

Seattle, Wash.—City Council contemplates paving following streets with brick: Horton, W. Stacey and Massachusetts Sts., cost $50,730; also construct sea wall, reconstruct sewer and water mains and pave with brick on Railroad Ave., $104,408.

Bd. Public Works contemplates paving Valley St. and 5th Ave. North; cost $48,151 and $27,145, respectively.

Plans and specifications filed by City Engineering Dept. with Bd. Public Works for paving as follows: Fairview St., cost $45,900; 5th Ave. North and Albia St., cost $25,383; W. Massachusetts St., cost $32,000; East Green Lake Way, cost $110,000; Mill St., cost $12,000.

Contract about to be let by Bd. Pub. Wks. for paving with asphalt 8th Ave. W., W. Galer and W. Garfield Sts.; cost about $50,000.

Tacoma, Wash.—Comrs. of Pierce County soon to let contract for paving on Orting Road about 7 miles; asphalt, concrete, warrenite or bitulithic.

Walla Walla, Wash.—Contract about to be let by County Comrs. for macadamizing 3 miles roadway west of College Pl.

Astoria, Ore.—Columbia Highway in Clatsop is to be constructed at cost, about $23,000. J. C. Clinton, County Clerk.

Portland, Ore.—City Council voted to pave E. Adler, E. Water, E. 32d, E. Clay and E. 7th Sts.; cost about $46,000.

Salt Lake City, Utah.—City Comn. will soon let contract for a large amount of paving work, including the following: Paving extension 108, of bitulithic on B St., between 3d and 11th Aves., cost $25,502; No. 106, 6th E. St. and 4th S. St., cost $46,175; No. 113, curb and gutter with cement, install drains and pave with asphalt, 4th W. St., between 1st and 2d S. Sts., cost $13,859.

Moscow, Idaho.—City about to let contract for 20,000 sq. yds. asphaltic concrete pavement.

New Westminster, B. C. — Contract about to be let by City Council for macadamizing and constructing concrete sidewalks on Hospital and Keary Sts.

BIDS DESIRED.

Boston, Mass.—By Patk. O'Hearn, Acting Comr. Pub. Wks., as follows:

Until June 14, asphalt or bitulithic roadway in Idlewild St., Brighton, and bituminous macadam roadway in Lyford St., Dorchester.

Brookline, Mass.—Until June 14 by Bd. Selectmen (Edw. A. McEttrick, Secy.) for laying wood block pavt. on Washington St., 9000 sq. yds.

Albany, N. Y.—Until June 21 by Bd. Contract and Supply, according to press reports, for repaving S. Pearl St., from Howard St. to 4th Ave. Alternative bids desired for redressed granite or wood blocks.

Elmira, N. Y.—Until June 24 by Louis C. Andrews, City Clk., for grading, curbing and paving with vitr. block portions of William, W. Eater Sts., about 15,700 sq. yds., advertised in Engineering Record.

Long Island City, L. I., N. Y.—Until June 16 by Maurice E. Connolly, Bor. Pres., for paving 12th, Payntar and Freeman Aves. and Stephens St., requiring in all 16,350 sq. yds. sheet asphalt, 6200 sq. yds. improved granite block and 8400 sq. yds. asphalt block pavement; regulating, grading and laying sidewalks on portions of 4th Ave., Ithaca and Britton Sts., in all 26,200 sq. ft. cement sidewalk, etc.

Scarsdale, N. Y.—Until June 29 by Wm. Mercer, Town Supt. Highways for improving certain highways and sidewalks and constructing a highway bridge over N. Y. Central R.R. (Harlem Division), advertised in Engineering Record: 4600 sq. yds. pavt., 39,400 sq. ft. brick sidewalk, Ward, Carpenter & Co., Engrs., Tarrytown. Jay Downer, Engr. in Charge, 100 Bway., New York.

New Brunswick, N. J.—Reported desired until June 15 by Bd. Chosen Freeholders (Asher W. Bissett, Clk.), for resurfacing with bituminous concrete portion of New Brunswick—Old Bridge line, also St. George Ave. Alvin B. Fox, Co. Engr., Perth Amboy.

Trenton, N. J.—About June 25, by Frank Thompson, City Clk., for paving Whittaker and 5 other streets, with asphaltic concrete, on 5-in. concrete foundation; 4200 lin. ft. concrete curb, etc. Cost about $40,000. Abram Swan, Jr., Engr. of Streets, Municipal Bldg.

Media, Pa.—Until June 14 by Bd. Highway Superv. at office of J. E. Makiyer, for about 2½ miles of road in Upper Providence Township, Delaware County, advertised in Engineering Record. R. P. Green, Engr. in Charge, Media.

Philadelphia, Pa.—Until June 22 by Dept. Pub. Works, Bureau of Highways, City Hall, for street improvements, valued at approximately $175,000, Schedules A to J as follows: Schedule A, grading, estimated cost $25,000; (B) asphalt paving, cost $50,000; (C) granite block paving, cost $8,000; (D) asphalt repaving, cost $50,000; (E) vitri. block repaving, cost $4,000; (F) granite block repaving, cost $9,000; (G) bituminous macadam surfacing, cost $23,000; (H) waterbound macadam surfacing, cost $2,000; (I) bituminous macadam resurfacing, cost $2,500; (J) sidewalk construction, cost $1,500.

Wyoming, Pa.—Reported desired until June 15 by V. L. Breese, Boro. Secy., for paving with sheet asphalt, asphalt block or brick 6900 ft. Wyoming Ave.

Westminster, Md.—Until June 15 by County Comrs. (O. E. Dodrer, Clk.) for constructing a section of State Aid Highway along Houcksville Rd., a distance of about 1.46 miles.

Washington, D. C.—Until June 15 by Comrs. D. C. (Oliver P. Newman, Chmn.) for furnishing and delivering f.o.b. this city, for use in the Surface Division a 12-ton steam road roller.

Until June 22 by Comrs. D. C. (Oliver P. Newman, Chmn.), for laying granite block roadway, approximately 7700 sq. yds., advertised in Engineering Record; also same time and place separate bids for grading and improving streets, roads and avenues in Dist. of Columbia; both proposals advertised in Engineering Record.

Moundsville, W. Va.—Reported desired until June 17 by J. E. Chase, Clk. County Court, for macadamizing 7 miles of Fairmont Pike in Union Dist., Wheeling. T. J. Bartrug, Engr.

Clearwater, Fla.—Until June 18 by C. Wiecking, Clk. Bd. Co. Comrs., for constructing about 50 miles brick roadway, 9 ft. wide, backed by 3 ft. on each side of shell or rock.

Selma, Ala.—Reported desired until June 21 by County Bd. Roads for grading and graveling Barkersville, 10 miles; also Blacock and Uniontown Rd., 3½ miles.

Mansfield, La.—Until July 6 by E. C. Huson, Town Clk., approximately 10,130 sq. yds. street paving, 3500 lin. ft. curb, and 560 lin. ft. storm sewers, advertised in Engineering Record. Brick, sheet asphalt, bitulithic concrete, creosoted wood block or asphaltic concrete will be considered. E. E. Swope, Town Engr.

Berlin Heights, O.—Until June 21 by T. M. Elson, Township Clk., for improving Ceylon Rd., about 2.15 miles; also Shinrock and W. Berlin Rd., about 1.63 miles. Estimated cost, $12,000 and $14,000, respectively. L. A. and A. C. Schultz, Engrs., Sandusky.

Canton, O.—Until June 23 by Director Pub. Service (C. E. Hieber, Clk.) for improving and paving portions of Harrisburg Rd. N. E., Dueber Ave. S. W., 9th St. S. W. and several other streets, and constructing sanitary sewers in Lawn Ave. N. W. and Harrisburg Rd. N. E.

Columbus, O.—Until June 15 by Director Pub. Service (Paul B. Kemper, Clk.) for relocation of Grand Drive, Franklin Park, and grading and paving same.

Defiance, O.—Reported desired until June 14 by County Comrs., for grading and macadamizing Ft. Wayne Rd., No. 3, Defiance and Delaware townships. Probable cost $38,578.

Grand View Heights, O.—Until June 29 by Thos. G. Constable, Village Clk., for furnishing material and improving Wyandotte Lane and Lincoln Rd., by grading, paving with macadam and constructing curb and gutters of concrete.

Greenford, O.—Until June 18 by Trus. Green Township, care L. E. Coy, Clk., Greenford, for Sect. 2 of the North and South State Road and Sect. 2 of the East and West Roads, 15,779 ft., and Sect. 3, East and West State Road, 6998 ft.

Lakewood, O.—Until June 14 by Dept. Pub. Wks. (N. C. Cotabish, Dir.) for paving following streets with asphalt: Clifton Road, 12,000 sq. yds.; Forest Road, 4300 sq. yds.; W. Forest Road, 3400 sq. yds.; also same date alternate bids wanted between brick, sheet asphalt, bituminous concrete on the following streets: Mathews Ave., 4120 sq. yds.; Park Row, 2705 sq. yds. E. A. Fisher, City Engr.

Lancaster, O.—Reported desired until June 15 by John A. Mayer, Dir. Pub. Service for paving with hard burned vitr. brick or asphalt blocks portions of Union, Perry, and Winding Sts., including curbing, sidewalks, etc.; also until June 16 similar work on Walnut St.

Mentor, O.—Reported desired until June 18 by W. A. Davis, Co. Aud. for 1¾ miles of brick paving.

Mt. Gilead, O.—Reported desired until June 25 by C. O. Higgins, Co. Aud., for 1 mile macadam road in Westfield Township.

Indianapolis, Ind. — Reported desired June 18 by Bd. Pub. Wks. for grading, graveling and cement sidewalks on Sutherland Ave., Fall Creek Parkway and East Drive.

South Bend, Ind.—About June 29 by Bd. of Pub. Wks. for paving Allen St., about 6304 sq. yds., with asphalt or brick. F. J. Anderson, City Engr.

Cadillac, Mich.—The Bd. of Trade, in co-operation with city, about to construct 2½ miles 16-ft. road along south shore of Lake Cadillac adjacent to city. Address O. E. Carr, General City Mgr.

Sault Ste. Marie, Mich.—Until June 18 by Herbert L. Parsille, Co. Clk., for constructing 6 miles Class E. stone roads. H. A. Osborn, Co. Road Comr.

Chicago, Ill.—Until June 16 by Bd. Local Improv. (Edw. J. Glackin, Secy.), for constructing 6 ft. cement sidewalks on Archer Ave., W. 100th, W. 105th and a number of other streets.

Lake Forest, Ill.—Until 6 p. m. June 16 (readvertisement) for 13,400 sq. yds. asphaltic concrete pavement. Jas. Anderson, Jr., City Engr.

Green Bay, Wis.—Reported desired until June 28 by City Clerk for grading and macadamizing W. Mason St.

Merrill, Wis.—Reported desired until June 29 by Bd. Pub. Wks., at office of Wm. J. Kyes, City Clk., for paving with vitr. brick on concrete base, portions of Main and W. Main Sts.

Atlantic, Ia.—Until June 14 by T. E. Nichols, City Clk., for 24,600 sq. yds. cement concrete pavement and 12,300 ft. curb and gutter.

St. Peter, Minn.—Until June 14 by W. H. Holz, Co. Aud. for constructing State Rural Highway No. 57 approximately excav. 32,480 cu. yds.; Borrow 7662 cu. yds.; turnpiking 7950 lin. ft., etc.; cost $23,254.

Glasco, Kan.—Until June 15 at office of City Clerk, for constructing concrete pavement and concrete curb and gutter on Main St., requiring approximately 4524 sq. yds. pavement and 1665 lin ft. combined curb and gutter.

Wellington, Kan.—Until June 21 by City Clerk for paving F, G, H, 4th and 2d Sts. with asphaltic concrete on concrete base, about 38,000 sq. yds.; also 20,300 lin. ft. combined curb and gutter. J. W. Mavity, City Engr.

Lincoln, Neb.—Until June 16 by Theo. H. Berg, City Clk., for paving with asphaltic concrete in Paving Dist. No. 308; cost $18,400.

Bethany, Mo.—Until June 21 by J. B. McClure, City Clk., for 11,500 sq. yds. concrete pavt., and 7500 lin. ft. concrete curb.

Junction, Tex.—Reported desired until June 14 by County Comrs. for grading and graveling 7 miles streets in Junction. J. B. Randolph, Co. Judge.

Oakville, Tex.—Reported desired until June 16 for road construction. Probable cost $40,000. Address W. W. Caves, Co. Judge.

Tulsa, Okla.—Until June 14 by Bd. City Comrs. for paving portions of various streets, including Haskell, Latimer Sts. and Boston Ave. E. B. Cline, City Aud.

Goldendale, Wash.—Reported desired until June 19 by R. M. Spoon, Co. Aud., for constructing Permanent Highway No. 4. Lyman W. Ward, Co. Engr.

Port Townsend, Wash.—Reported desired until June 22 by Geo. Anderson, City Clk., for street improvements in Local Street Improvement Dist. No. 6.

Tillamook, Ore.—Reported desired until June 15 by J. C. Holden, County Clk., for clearing, grading and paving Tillamook-Fairview Rd.; also Tillamook-Cloverdale Rd. Bids desired on sheet asphalt, asphaltic concrete, light bitulithic, one-course grouted top concrete and wood block.

Sandpoint, Idaho.—S. M. Moore, City Clk., writes bids will be opened June 15 for paving Cedar St., 1st and 2d Aves., about 20,000 sq. yds. on 5-in. concrete foundation with 4312 lin. ft. combined curb and gutter. Material for paving not yet decided upon. Appropriation $60,000.

Reported desired until June 16 by Comrs., for constructing Rd. No. 293 and Rd. No. 203. Clyde J. Chaffins, Co. Surveyor.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Maine.**—Contract awarded by State Dept., Augusta, for State highways:

Portland to Dunstan (concrete), to Hassam Paving Co., Worcester, Mass., at $69,454.

Connecticut.—Lowest bid opened June 1 by Chas. J. Bennett, State Highway comr., Hartford, for state work.

Hartford—13,790 sq. yds. Leonardo Suzio, Meriden, at $18,343 for reinforced concrete with washed sand or $17,950 with unwashed sand.

Albany, N. Y.—Following are lowest bids opened June 4 by State Comn. of Highways for furnishing broken stone: Niagara County, 1400 tons, John W. Landel, Tonawanda, N. Y., $2,512; Seneca County, 355 tons, Richard Hopkins, Troy, $752, and Wayne County, 605 tons, Rich. Hopkins, Troy, $1,479.

Albany, N. Y.—Following are lowest bids opened June 4 by State Highway Comn., 55 Lancaster St., for constructing highways by State Aid:

No. 1279, Dunnsville-Altamont Rd., Albany Co., 3.41 miles: Curran Cor., Middletown, $27,851; A. Schaupp, Guilderland, $28,899; Criswell & Mallor, Inc., Mechanicsville, $29,234.

No. 1280, Dormansville Rd.,etc., Albany Co., 5.76 miles: David H. Craw, Ravena, $56,736; C. W. Tryon, Bountonville, $57,-858; Geo. H. McAvoy, Creek Locks, $58,464.

No. 5555, Loudon-Crescent Rd., Albany Co., 4.20 miles: Thos. H. Karr, Troy, $47,-414; Brown & Lowe, Schenectady, $48,225; Geo. H. Totty, Cohoes, $49,897.

No. 5259-A, Salamanca-Little Valley Rd., Part 2, Cattaraugus Co., 4.29 miles: Jas. Rossney, Buffalo, $55,934; Woolsey Constr. Co., Davenport, Ia., $57,310; Fred E. Gross & Son, Yonkers, $57,550.

No. 5432-A, Horseheads-Cayuta Rd., Chemung and Schuyler Cos., 8.98 miles: Bord Bros., Elmira, $89,686; Peter F. Connolly Co., Horseheads, $96,578; Brady-Oltarsch Constr. Co., Inc., New York, $98,183.

No. 1285, Westport-Wadhams Mills Rd., Essex Co., 3.31 miles: Bluff Point Stone Co., Plattsburgh, $29,461; John F. Lewis, Albany, $31,836; Boynton & McNally, Keeseville, $32,522.

No. 1286, Gabriels-Bloomingdale Rd., Part 1, Essex Co., .52 mile: Rumph & Stevens, Lake Placid, $5,688; E. M. Merrill & Paul J. Merrill, Saranac Lake, $5,894.

No. 1227, Redwood-St. Lawrence County Line Rd., Jefferson Co., 4.60 miles: Jas. E. Martin, Utica, $56,474; Criswell & Mallory, Inc., Mechanicsville, $57,795; McNerney Constr. Co., Canton, Pa., $58,305.

No. 1281, W. Greece-Manitou Beach Rd., Monroe Co., 8.39 miles: P. H. Murray, Rochester, $73,891; Ribstine-Holter Co., Inc., Rochester, $74,792; McNerney Constr. Co., Canton, Pa., $76,931.

No. 1282, Morton-Redman Rd., Monroe Co., 1.51 miles: Morrison & Quinn, Inc., Rochester, $17,852; Goodrich & Truesdale, Barnard, $17,912; Michl. O'Brien, Cortland, $17,986.

No. 1159, Vienna-New London Rd., Oneida Co., 7.76 miles: H. B. Sproul, Const. Co., Peekskill, $82,944; John H. Gordon, Albany, $83,992; Jas. Anderson, Menands, $84,998.

No. 5328-B, W. Point-Central Valley Rd., Orange Co., 6.27 miles: Schunnemunk Constr. Co., Highland Mills, $73,445; John L. Hayes Constr. Co., Yonkers, $74,039; Fred E. Gross & Son, Yonkers, $75,506.

No. 580, Fancher-Brockville Rd., Orleans Co., 2.87 miles: Thos. Holahan, Rochester, $39,878; Rhody & Clawson, Albion, $42,069; McNerney Constr. Co., Canton, Pa., $42,148.

No. 581, Yates-Lyndonville-Ridgeway Rd., Orleans Co., 7.46 miles: Michael Murphy, Rochester, $65,035; McNerney Constr. Co., Canton, Pa., $77,267; Westchester-Dutchess Cor., Mt. Vernon, $79,601.

No. 5556, Ridgeway-Gaines Rd., Part 1, Orleans Co., .17 mile: Rhody & Clawson, Albion, $2,948; Arlington Constr. Co., Rochester, $3,010.

No. 1287, Pulaski-Williamstown Rd., Part 3, Oswego Co., 7.75 miles: Brown & Lowe Co., Schenectady, $62,846; F. A. Biggi, Brooklyn, $63,989; P. H. Murray, Rochester, $64,621.

No. 1288, Pulaski-Williamstown Rd., Part 1, Oswego Co., 5.12 miles: Brown & Lowe Co., Schenectady, $37,343; P. H. Murray, Rochester, $41,722; Thos. Grady, Rochester, $43,439.

No. 1261, Massena-Helena Rd., Part 1, St. Lawrence Co., 5.66 miles: Ross-Hallenbeck Constr. Co., Copenhagen, $68,770; McNerney Const. Co., Canton, Pa., $70,-749; Henry P. Burgard, Buffalo, $71,277.

No. 5474-A, Cayuta-Newfield Rd., Scuyler and Tompkins Cos., 7.60 miles: Hendrickson-McCabe Constr. Co., Spencerport, $54,261; Brady-Oltarsh Constr. Co., Inc., New York, $58,058; Alfred Gaffney, Syracuse, $61,705.

Following are lowest bids opened same time and place for repair of highways:

No. 781, Loudon Rd., Albany Co., .53 mile: Geo. Holler, Albany, $3,780; Thos. H. Karr, Troy, $4,014.

No. 785, Beaver Dam, Delaware, Etc., Rds., Albany Co., 11.22 miles: John W. Flynn, Waterford, $36,495; W. L. Lawton, Glens Falls, $39,598; Brown & Lowe Co., Schenectady, $39,903.

No. 726, Violet Ave., Poughkeepsie-Hyde Park Rd., Dutchess Co., 12.88 miles, Thos. J. Martin, Beacon, $9,708; Conway Bros. & Kennedy, Eddyville, $10,132; Wm. Doyle, Saugerties, $10,154.

No. 701, Granby Rd., Oswego Co., 3.09 miles: DeBarber & Hill, Fulton, $9,568; Pathfinder Constr. Co., Fulton, $9,790; J. H. Weidman, Syracuse, $10,575.

No. 774, Hoosick-N. Hoosick Rd., Rensselaer Co., 1.43 miles: Wm. L. Sherrill, Hudson Falls, $9,999; Thos. H. Karr, Troy, $10,704; Kingsbury Constr. Co., Hudson Falls, $10,738.

No. 600, Troy-Schenectady Rd., Parts 1 and 2, Schenectady Co., 3.94 miles: Brown & Lowe Co., Schenectady, $26,417; Wm. L. Sherrill, Hudson Falls, $28,298; John P. Dygan & Co., Amsterdam, $30,434.

★**New York, N. Y.**—Contracts awarded by Pres. Manhattan Boro. on May 24 for paving as follows:

★Repaving with asphalt: Dutch St., John to Fulton St., to Sicilian Asphalt Paving Co., 41 Park Row, at $1,982; 24th St., 6th to 7th Ave. and 8th to 10th Ave., and 54th St., 3d to Lexington Ave., to Aztec Asphalt Co., 90 West St., at $18,186 and $3,022, respectively.

★Paving with asphalt: 160th St., west of Ft. Washington Ave., to Asphalt Constr. Co., 208 Bway., $3,269.

★Repaving with granite block: 30th St., 9th to 10th Ave., to W. J. Fitzgerald, 547 W. 45th St., $12,035; 38th St., 1st to 2d Ave., to M. Baird Co., 433 E. 92d St., $10,343, and 160th St., west of Ft. Washington Ave., to J. L. Brennan, 223 W. 167th St., $3,681.

★**Hackensack, N. J.**—Contract for improving Teaneck Rd., Schraalenburgh Rd. and Forest Ave. awarded to E. C. Humphrey, Hackensack; estimated cost, $88,968. (Bids opened by County Bd. Freeholders May 28.)

★**Harrison, N. J.**—Contract for paving with bitulithic 4th St. awarded by Town Council to Maher & McNichols, at $35,170.

★**Ridgefield Park, N. J.**—Contract awarded for improving a portion of Summit St. with macadam to A. W. Gill, of Hackensack. M. D. Starker, Village Clk.

★**Philadelphia, Pa.**—Contracts awarded June 2 by Dept. Pub. Works to McNichol Paving & Constr. Co., 1723 Cherry St., as follows: Repair with wood block Chestnut St., $11,502; repair Wayne Ave. with vitr. brick, $13,406.

★Contract for paving South St. with wood block awarded by Dir. Pub. Wks. to McNichol Paving & Constr. Co., 1723 Cherry St., at $87,200. Bids opened May 26.

★**Towson, Md.**—Contracts for improving with concrete Beaumont Ave., Hollins Ferry and Gundon Lane have been awarded to Geo. Long Contr. Co., Canton, at $4,800; Bond & Fedeli, Baltimore, at $13,490, and Harry Brannon, Baltimore, at $10,038 (bids opened May 27). W. G. Sucro, County Road Engr.

★**Lake City, Fla.**—Contract awarded conditionally by Bd. of Pub. Wks. to Florida National Vault Co., of Lakeland, for paving, at $20,000, pending result of election by county to issue $250,000 bonds. County Comrs. propose to purchase brick with this amount for building system of brick roads in Columbia County. A. S. Miller, City Engr.

Huntsville, Ala.—Lowest bid opened by Probate Judge for constructing highway over Big Cobe Mountain submitted by Frank Powell, at $11,500.

★**Louisville, Ky.**—Contract for paving awarded by Bd. Pub. Wks. May 27 to American Standard Asphalt Co., Lee and Floyd Sts., at $13,500 for asphalt on Franck Ave., and $5,060 for bituminous concrete on English St.

Baltimore, Md.—Following are bids opened by Paving Comn. June 2 for Contract 118, paving Lombard and Washington Sts.: (a) Flannigan & Sons, Baltimore (lowest bid); (b) American Paving & Contr. Co., Baltimore; (c) Baltimore Asphalt Block & Tile Co., Baltimore:

	(a)	(b)	(c)
24,400 sq. yds. sheet asphalt 1½-in. top, 1½-in. binder, 6-in. concrete base	$1.39	$1.40	$1.35
500 sq. yds. vitr. block, cement fill, mortar cushion, 6-in. concrete	2.05	1.95	2.10
2,400 sq. yds. Hillside vitr. block, cement fill, mortar cushion, 4-in. concrete	2.00	1.95	2.00
950 sq. yds. granite block, asphalt fill, sand cushion, 6-in. concrete	3.50	3.20	3.30
1,000 sq. yds. (railway area) granite block, asphalt fill, sand cushion, 6-in. concrete	3.55	3.20	3.45
10,000 lin. ft. armored concrete curb and circles, 6 in. thick	.50	.50	.49
3,800 lin. ft. old stone curb and circles redressed and reset	.33	.32	.32
110 sq. yds. granite block liners, asphalt fill, mortar cushion, 6-in. concrete	3.75	4.00	4.00
2,150 sq. yds. vitr block, gutters, cement	2.00	1.95	2.10
Totals	$53,791	$53,932	$57,989

★**Akron, O.**—Contract awarded May 28 by County Comrs. (C. L. Bower, Secy.), for improving the Bath-Richfield Rd., to the Windsor Bros. Constr. Co., at $65,000.

★**Bucyrus, O.**—Contract for paving Mary St. (bids opened May 13) has been awarded to C. E. Williams, of Grand Rapids, Mich., at the following bid: 2900 cu. yds. excav., 40 cts.; 5000 lin. ft. straight stone curb, 46 cts.; 324 lin. ft. circ. stone curb, 71 cts.; 5300 lin. ft. cement curb, 35 cts., or 5300 lin. ft. cement curb and gutter, 40 cts.; 300 lin. ft. stone headers, 25 cts.; 9762 sq. yds. brick paving on 5-in. concrete, cement fill, at $1.52 to $1.68 per sq. yd., according to class of brick; 5560 lin. ft. 4-in. drain tile, 4 cts.; 4 catchbasins with traps, ea. $30; 3 catchbasins without traps, ea. $25; 6 resetting catch basins, $4; 100 lin. ft. 10-in. sewer pipe, 60 cts.; 400 sq. ft. relaying stone walk, 2 cts.; 125 lin. ft. 10 x 18-in. cement curb, 40 cts.; 125 lin. ft. 10 x 18-in. cement curb and gutter, 45 cts. F. L. Niederheiser, City Engr.

★**Canton, O.**—Contract for repairs to Tuscarawas St. Bridge awarded to Coshocton Constr. Co., Coshocton, at $10,146. Bids opened May 28 by County Comrs.

★**Dayton, O.**—Contract for paving W. 3d St. from Ardmore St. to C. H. & D. Ry. crossing, awarded to W. J. Kernan & Co., at $13,820.

★**Toledo, O.**—Contracts for paving awarded by Bd. Control as follows: Parkwood St. wood block Russell & Jennison, $23,609; Forest Drive, asphalt block, Asphalt Block Paving Co., $7,064; Hampton Ave. and Hawley St. with brick, McKinney Bros., Toledo, at $16,068 and $6,654 respectively. Bids opened May 18.

★**Sullivan, Ind.**—Contract for paving North and South Section Sts. awarded by City Council to J. B. Dorris, Sullivan, at $21,254.

★**West Baden, Ind.**—Contract for constructing boulevard leading to golf links awarded by West Baden Springs Co. to L. R. Figg Co., Louisville, Ky., at $40,000.

Ann Arbor, Mich.—Following are bids opened June 2 for 20,000 sq. yds. asphaltic concrete pavt.: Good Roads Constr. Co., Chicago, $31,170; F. G. Proudfoot, Chicago, $31,534; Globe Constr. Co., Kalamazoo, $33,238.

★**Detroit, Mich.**—Contract for 140,000 sq. yd. pavement on Grand Boule. awarded to Dept. Pub. Wks. by Parks and Boulevard Dept.

Chicago, Ill.—Harries & Co., Chicago, submitted low bid June 3 to South Park Comrs., at $38,631, for asphaltic concrete pavt.

Illinois.—Following are lowest bids opened June 2 by State Highway Comrs., Springfield, for state road work (cement furnished by State):

Tazewell County, Sect. E, concrete, 1500 ft.: R. A. Mandaris Constr. Co., East St. Louis, $1,937; W. D. Alexander & Co., Normall, $1,990.

Wabash County, Sect. A, gravel, 8860 ft. (no material furnished by State) Hoffmann, Townsend & Pesks, Mt. Carmel, $6,300; Rees Bros., Quincy, $6,395.

La Salle County, Sect. A, brick, 4040 ft.; Ajax Constr. & Engr. Co., Gary, Ind., $23,985; W. J. Brennan, La Salle, $23,991.

★**Sheboygan, Wis.**—Contract for 14,000 sq. yd. concrete pavement on 4th St. awarded by Bd. Pub. Wks. to John Braun, Sheboygan, at $22,044.

Superior, Wis.—Following bids opened for paving Wecks Ave: Magnus Peterson, concrete, $25,083; brick, $37,181; F. P. Coughlin, sheet asphalt, $33,865; Fielding & Shepley, St. Paul, Minn., asphaltic concrete, $37,643.

Sioux City, Ia.—Lowest bid opened by city for paving with concrete Military Rd. submitted by Hanlon & Oakes, Sioux City, at about $39,998.

Bozeman, Mont.—Contracts awarded by city for work in Special Improv. Dist. (bids opened May 20) as follows:

★To Warren Constr. Co., Journal Bldg., Portland, Ore., for standard bitulithic pavement, on a rock base, per sq. yd., $1.97; on a concrete base, $2.32; light standard bitulithic, $1.89; excav. per cu. yd., 70 cts.; crushed rock fill per cu. yd., $2.13.

★To A. Birch & Sons Constr. Co., Bozeman, as follows: For 5 x 18-in. battered boulevard curb, Class A, per lin. ft., 41 cts.; corner returns of segments, Class A, concrete, ea. $4; 5-ft. concrete walks, Class C concrete, 4-in. base, ¾-in. mortar top coat, per sq. ft. 13 cts.; concrete crosswalks, Class B concrete, 4½-in. base, 1½-in. mortar top coat, per sq. ft. 22 cts.; concrete driveway, Class B concrete, 4½-in. base, 1½-in. mortar top coat, per sq. ft. 22 cts.; gravel fill, per cu. yd. $2; extra excav., per cu. yd. 60 cts.

Following contracts awarded by County Comrs. for constructing roads: 6-mile road, to J. N. Brown, Bozeman; 3½-mile road in Holland Settlement and for 2½-mile road west of Manhattan, to W. H. Taylor, Bozeman.

★**Potosi, Mo.**—Contract awarded June 1 for finishing about 18,000 sq. yds. gravel and stone roads in Potosi Special Road Dist. to Knorp Constr. Co., of Desota. W. R. Heagler, Engr., Washington County Bank Bldg.

★**Sheridan, Ark.**—Contract for constructing 28-mile road in Grant County awarded by Road Comrs. Improv. Dist. No. 1, May 20, to Cole Constr. Co., Little Rock, at $103,941.

★**Corpus Christi, Tex.**—Following are totals of bids opened May 28 for street improvements: Texas Bitulithic Co., Dallas, bitulithic pavt., $259,354 (awarded contract); Eureka Paving Co., Houston, 3-in. creosoted wood block, $323,482; asphaltic concrete pavt., $237,207; or asphaltic concrete pavt. using crushed limestone, $233,756; Uvalde Rock Asphalt Co., San Antonio, Uvalde rock asphalt pavt., $222,116; Vibrolithic Constr. Co., Dallas, Vibrolithic pavt., $211,950.

★Unit prices of Texas Bitulithic Co., Dallas, successful bidder:

86,275 sq. yds. bitulithic pavt.	$2.48
20,500 cu. yds. excav. and grading	0.35
Overhaul (1000 ft, free haul), per cu. yd.	0.01
1,000 lin. ft. standard concrete curb	0.38
13,000 lin. ft. standard concr. gutter	0.30
31,000 lin. ft. concrete combined curb and gutter	0.65
370 concrete gutter stones and plates, ea.	3.75
8 ft. pine head boards	50.00
1,600 cu. yds. extra concr. (car line)	7.50
Extra excavation, per cu. yd.	0.50
Extra concrete, per cu. yd.	7.00
Extra crushed limestone, per cu. yd.	2.80
Extra sand, per cu. yd.	1.80
Reset old concrete curb, per lin. ft.	0.25
Reset combined curb and gutter, per lin. ft.	0.35

★**Dayton, Wash.**—Contract to construct Johnson Hollow Rd. awarded by County Comrs. to Cascade Constr. Co., North Yakima, at $13,940 (bids opened May 27).

★**Everett, Wash.**—Contract for constructing Permanent Highway No. 14 in Snohomish County awarded by County Comrs. to Atlas Constr. Co., Everett, at $14,260.

★**Seattle, Wash.**—Contract for paving 9th Ave. West awarded by Bd. Pub. Wks. to McHugh Paving & Contr. Co., 3d North and Mercer Sts., at $19,360.

★Following are 3 lowest bids opened by Bd. County Comrs. for concrete pavements on Greenwood Ave. Rd.; D. McGarvey, Seattle, $38,894 (awarded contract); D. H. Traphagen, Seattle, $40,605, and McGuire Bros., Seattle, $41,000.

★**Walla Walla, Wash.**—Contract for macadamizing 3 miles Walla Walla-Waitsburg Rd. awarded by County Comrs. May 21 to Cascade Constr. Co., North Yakima, at $16,948.

★**Washington.**—Contracts for constructing roads awarded by State Highway Comn., Olympia, as follows:

Lacey-Nisqually section Pacific Highway, to L. H. Goerig, Seattle, $16,378.

Toledo, south section Pacific Highway, Lewis County, to Andrew & Honer, Portland, at $18,748.

Approaches to Mashel Bridge on National Park Highway Route, Pierce County, to Kendle & Appler, Eatonville, at $17,355.

★**Albany, Ore.**—Contract for paving 10 blocks with asphaltic concrete awarded by City Council to Asphalt Machinery Co., Crary Bldg., Seattle, at $1.05 per sq. yd.

★**Gearhardt, Ore.**—Contract to construct 1-mile hard surface road, 18 ft. wide, awarded by Gearhart Park Co. to Worswick Paving Co., Astoria.

Portland, Ore.—Lowest bid opened by City Council for bituminous pavement on 28th St. submitted by Oskar Huber, Portland, at $17,122.

California.—Contracts awarded by State Highway Dept., Sacramento, June 1 and 2 as follows:

★Los Angeles County (bet. Saugus and Castaic), Div. 7, Route 4, Sect. A, to Homer R. Kennedy and Frank Williams, 154 Wilson Block, Los Angeles, $21,101 (bids opened May 24).

★Tehama County (bet. Proberta and Red Bluff), Div. 2, Route 3, Sect. B, to Hoffman & McLaren, 208 Central National Bank Bldg., Oakland, $43,657 (bids opened May 24).

★Humboldt County (bet. Jordan Creek and Rio Dell), Div. 1, Route 1, Sect. E, to Bates, Borland & Ayer, Oakland Bank of Savings Bldg., Oakland.

★Monterey County (bet. Chualar and Salinas), Div. 5, Route 2, Sect. B, to W. A. Dontanville, Paso Robles. (Bids opened Apr. 26).

California.—Following are bids opened June 1 by State Highway Comn., Forum Bldg., Sacramento, for constructing State roads as follows:

Tulare County, Div. 6, Route 10, Sect. A: Lowest bidder, Geo. S. Benson & Sons, Los Angeles, as follows: 2970 cu. yd. excav. (ordinary), 75 cts.; 2220 cu. yd. excav. (borrow), 90 cts.; 210 lin. ft. 12-in. cor. i. pipe, 80 cts.; 174 lin. ft. 18-in., $1; 11 cu. yd. cement concrete, class B (culverts and monuments), $15; 3840 cu. yd. cement concrete, class B (pavt.), $3.35; 16 monuments, to haul and set., ea., $2; total, $17,628. Other bids: W. A. Dontanville, Paso Robles, $20,378; Taylor & Berliner, Los Angeles, $24,957; Engineer's estimate, $16,499.

Monterey County, Div. 5, Route 2, Sect. B: Lowest, bidder, W. A. Dontanville, Paso Robles, as follows: 11,200 cu. yd. excav. (without classification), 60 cts.; 710 lin. ft. 12-in. cor. i. pipe, 50 cts.; 245 lin. ft. 18-in., 60 cts.; 135 lin ft. 24-in., 70 cts.; 120 cu. yd. cement concrete, Class B (culverts and monuments), $9.50; 4600 cu. yd. cement concrete, Class B (pavt.), $2.55; 220 lin. ft. guard rail, 40 cts.; 66 monuments, to haul and set, ea., $1; total, $20,340. Next 3 lowest bids: Lou G. Hare, Salinas, $22,733; Petersen & Grier, San Francisco, $23,381; Manuel Jacinto, Sacramento, $26,250. Engineer's estimate, $29,777.

Humboldt County, Div. 1, Route 1, Sect. E: Lowest bidder, L. F. Gerdetz, San Francisco, as follows: 89,000 cu. yd. excav. (without classification), 50 cts.; 1466 lin. ft. 12-in. cor. i. pipe, 60 cts.; 316 lin. ft. 15-in., 75 cts.; 354 lin ft 18-in., $1; 412 lin. ft. 24-in., $1.20; 274 lin. ft. 30-in., $1.50; 342 cu. yd. cement concrete, Class B (culverts and monuments), $14; 7.3 miles move and reset property fences, $350; 180 monuments, to haul and set, ea., $1; total, $54,399. Next 3 lowest bids: Bates, Borland & Ayer, Oakland, $55,061; Hoffman & McLaren, Oakland, $55,790; G. W. Conners, Eureka, $60,081. Engineer's estimate, $65,729.

Colusa County, Div. 3, Route 7, Sect. C: Lowest bidder, L. F. Gerdetz, San Francisco, as follows: 11,000 cu. yd. excav. (without classification), 45 cts.; 60 lin. ft. 12-in. cor. i. pipe, 75 cts.; 180 lin. ft. 18-in., $1; 60 lin. ft. 24-in., $1.25; 360 cu. yd. cement concrete, Class B (culverts and monuments), $9; 10,400 cu. yd. cement concrete, Class B (pavt.), $3; 750 lin. ft. guard rail, 40 cts.; 62 monuments, to haul and set, ea., $1; total, $40,052. Next 3 lowest bids: C. H. Gorrill & A. W. Gorrill, San Francisco, $41,489; Marin Rock Co., San Anselmo, $41,548; Taylor & Berliner, Los Angeles, $42,002. Engineer's estimate, $48,857.

★**Rigby, Idaho.**—Contract for constructing 12 miles hard surface roads in Bonneville County awarded to E. L. Phelps Constr. Co., Rigby.

STREET CLEANING AND GARBAGE DISPOSAL

PROPOSED WORK.

Minneapolis, Minn.—Bonds in the sum of $18,000 reported sold, to be used for an additional garbage incinerator.

Kansas City, Mo.—Citizens voted, June 1, $300,000 for removal and disposal of garbage and refuse.

Victoria, Tex.—City Sanitary Comn. has recommended construction of a Decarie incinerator, to cost about $7,000.

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS

PROPOSED WORK.

Digging Canal—Brooklyn, N. Y.—The City Bd. of Estimate has appropriated $80,000 for digging Mill Creek Canal to a width of 300 ft. and constructing basin with a wharfage front on Ave. U and 400 ft. on Flatbush Ave. extension, to connect with main channel in Jamaica Bay.

River Improvement—Hornell, N. Y.—The Governor has signed bill providing for an appropriation of $44,500 for improvement of Canisteo River, between Hornell and Canisteo.

Sea Wall—Key West, Fla.—State Legislature will be petitioned by County Comrs. for permission to call election to vote $300,000 bonds to build breakwater and sea wall.

Dams—Natchitoches, La.—Police Jury has voted to construct 2 dams across Cane River.

Levee Work—New Orleans, La.—Bd. of Comrs. of Orleans Levee Dist. has approved following work on west bank, and engineer was instructed to prepare specifications and ask for bids: Algiers Saw Mill to Southern Pacific Railroad Co. Terminals, upper line, length 925 ft., 12,000 cu. yds.; Southern Pacific Railroad Co. Terminals to be relegated to that company for necessary work required; lower end of Southern Pacific Railroad Company's Terminals to U. S. Naval Station, length 685 ft., 12,000 cu. yds.; Aurora Levee, sheet piling and concrete revetment, length, 5800 ft.; Upper Stanton Levee, river enlargement, length 1500 ft., 15,000 cu. yds.

Levee—Springfield, Ill.—State Legislature passed bill appropriating $45,000 to complete building of levees at Cairo, Mound City and Shawneetown.

Irrigation — Missoula, Mont. — S. H. Ketcham, 220 Higgins Ave., reported interested in construction of a 3-mile reclamation ditch near Iron Mountain.

Irrigation—Powell, Wyo.—U. S. Reclamation Service is having plans and specifications prepared for an extension of Frannie Canal of Shoshone Project. This extension is merely development of an additional unit, to irrigate about 10,000 acres of land, involving construction of about 70 miles of canals, of capacity varying from 5 second-ft. to 470 second-ft. and appurtenant structures.

The construction contemplated on the above project for fiscal year, July 1915-June 1916, is extension of canal system under Corbett dam and a tunnel to cover about 1100 acres in vicinity of Frannie, at probable cost of $30,000. Bids will probably be called for about Aug. 1. Geo. O. Sanford, Project Engr., Powell.

Levee—McGehee, Ark.—Taxpayers in Cypress Creek Drainage Dist. reported to have voted to subscribe $110,000 to complete filling gap in levee in Desha County.

Raising Dam—Ft. Worth, Tex.—J. D. Trammell, Chmn., Bd. of Reservoir Engrs., estimates cost at $9,000 for raising 3 ft. earthwork of Lake Worth dam.

Drains—Mt. Pleasant, Tex.—Plans and specifications for levee work and draining several thousand acres in White Oak Bottoms, near Mt. Pleasant, being prepared by Northeast Texas Eng. Co., of Mt. Pleasant.

Wharf and Dock, Etc.—Orange, Tex.—Election will soon be held to vote $150,000 school bonds, $150,000 wharf and dock bonds and $25,000 street improvement bonds.

Lawton, Okla.—Sum of $100,000 reported set aside by U. S. Government to be used in connection with installation of Medicine Creek dam project at Medicine Park, near Lawton.

Bulkhead, Etc.—Seattle, Wash.—The Bd. of Works (L. B. Young, Chmn.) is reported to have returned unopened bids recently received for bulkheading and filling Alki Ave., between Rhode Island St., near Luna Park, to 63d Ave. S. W., near Municipal Bathing Beach; matter will be delayed until some definite arrangement is made with the Puget Sound Traction, Light & Power Co., which will be required to pay a portion of cost; estimated at $95,000.

Pier—Redondo Beach, Cal.—City about to sell $121,000 bonds for a municipal pleasure and fishing pier.

Drainage—Tempe, Ariz.—The ranchers of the Kyrene country, Drainage Dist. No. 1 of South Tempe, reported to have voted $75,000 bonds for the drainage of about 9000 acres of land.

BIDS DESIRED.

Pier—Brooklyn, N. Y.—Until June 18 by R. A. C. Smith, Comr. Docks, New York City, for Contr. 1209, furnish material and erect new pier at foot of 30th St., Boro. Brooklyn. Security, $78,000.

Repair to Jetty, Etc., Wilmington, Del.—Until June 28 by U. S. Engineer Office, Old Federal Bldg., Wilmington, Del., for repairs to north jetty and placing fender piles on Christiana River, Del., advertised in Engineering Record.

Drainage—Holly Hill, S. C.—Until June 22 by Bd. Rum Neck Drainage Comrs. (M. L. Breland, Chmn.) for constructing canal, estimated to be about 5 miles in length, from 3 to 10 ft. wide (bottom width), from 2 ft. 2 in. to 4 ft. in depth, requiring 14,740 cu. yds. excav.

Drainage Ditches—Bartow, Fla.—Until July 1 (extension of date from June 1) by Peace Creek Drainage Dist., 77 Main St., Bartow, for constructing 142 miles of drainage ditches, approximately 2,432,743 cu. yds. excav. C. G. Elliott, Engr., McLachlen Bldg., Washington, D. C.

Levee Work—New Orleans, La.—Reported desired until June 15 by State Bd. Engrs., New Orleans, for levee work as follows: Right bank, Parish Pointe Coupee Stop levee, riverside enlargement, 210,000 cu. yds.; La Fourche Levee Dist., St. James Parish enlargement and new work, 157,000 cu. yds.; Whitney levee, St. Johns Parish, Strange Levee, St. John's Parish, enlargement, 84,000 cu. yds.

Levee Work—Memphis, Tenn.—Until June 26 by Maj. E. M. Markham, Corps Engrs., U. S. A., Mississippi River Comn., 1st and 2d Dists., Rm. 20, Custom House, for about 700,000 cu. yd. levee work, Lower St. Francis Levee Dist., advertised in Engineering Record.

Boat Landing, Etc.—Cleveland, O.—Until June 17 by A. E. Callow, Comr. Purchases and Supplies, for constructing boat landing and piling at Edgewater Park.

Ditches—Three Lakes, Wis.—Reported desired until June 25 by Three Lakes Drainage Dist., for constructing about 11 miles open ditches requiring about 150,000 cu. yds. excav.

Ditch Work—Buffalo, Minn.—Until June 28 by John A. Berg, Co. Aud. for digging and constructing County Ditch No. 24. Main ditch excav. 87,769 cu. yds.; cost $9,553; Lateral No. 1, excav. 1540 cu. yds.; cost $231.

Irrigation System—Eureka, Mont.—Until June 14 by Bd. Comrs. Glen Lake Irrigation Dist. (F. P. Garey, Chmn.), for constructing complete gravity irrigation system for Dist. advertised in Engineering Record. The Engineering Corporation, Kohrs Blk., Helena, Superv. Engrs.

Gates for Irrigation Dam—El Paso, Tex.—Until June 30 by U. S. Reclamation Service, Washington, D. C., to furnish one set of steel Tainter gates, consisting of 4 gates 6 ft. 3 in. x 21 ft. 5¾ in., and 9 gates 4 ft. 6 in. x 21 ft. 5¾ in., all complete with fittings, for Mesilla Diversion Dam, Rio Grande Project, N. Mex., advertised in Engineering Record. Total weight approximately 22 tons.

Flumes—Harlingen, Tex.—Reported desired until June 19 by County Irrigation Dist. No. 1 for constructing 2 metal flumes over Arroyo, Colorado.

Ditches—Port Lavaca, Tex.—Reported desired June 22 by E. R. Edick, Secy. Seadrift Drainage Dist. No. 3, for 45 miles of ditches requiring 326,000 cu. yds. earth excav. T. H. Clement, Engr., Port Lavaca.

Irrigation—Imperial, Cal.—Reported desired until June 16 by City Clerk for constructing 41,809 sq. ft. of floor and lining with reinforced wire mesh in connection with the irrigation system

PRICES AND LETTINGS.

★*Indicates award of contract.*

Steel Lock Gates for Dam Work—Wheeling, W. Va.—Following are lowest bids opened May 18 by T. H. Jackson, Corps Engrs., U. S. A., for furnishing and erecting steel lock gates for, (a) Dam No. 12, (b) No. 20, in Ohio River: Independent Bridge Co., Pittsburgh, Pa., (a) $24,980, (b) $25,950; American Bridge Co., Pittsburgh, Pa., (a) $25,850, (b) $26,880; Lupfer, & Remick, Buffalo, (a) $26,473, (b) $26,393; Milwaukee Bridge Co., Milwaukee, Wis., (a) $27,336, (b) $26,982.

★**Levee—New Orleans, La.**—Contract awarded by State Bd. Engrs. (G. W. Lawes, Secy.) for constructing Lucy levee, about 215,000 cu. yds., to Louisiana Contr. Co., 519 Hiberia Bank Bld., at 9.94 cts. per cu. yd. Next 3 lowest bids: Lower Coast Constr. Co., Pointe a la Hache, 10.9 cts.; Dameron-White Co., Ltd., 1208 Hiberia Bank Bldg., 11.62 cts.

★**Levee Work—Memphis, Tenn.**—Contracts awarded as follows by Maj. E. M. Markham, Corps Engrs., U. S. A., for levee work in Upper and Lower St. Francis and White River Levee Dists. (bids opened May 26): To Oglesby Constr. Co., Memphis, entire work in Upper St. Francis, 1,930,000 cu. yds. at 9 cts., 10 cts., 11 cts., 12 cts., 13.6 cts., 16 cts., 18 cts. and 20 cts. per cu. yd.; total cost $236,194; to Roach, Stansell-Lowrance Bros. & Co., Memphis, 553,300 cu. yds. in White River Levee Dist., at 17.5 cts., 18 cts. and 19.5 cts. per cu. yd.; total $101,960; to Rodgers Bros., Memphis, 623,000 cu. yds. in White River Dist., at 18.2 cts.; total $113,386; and to Yale & Regan, Chicago, Ill., 440,000 cu. yds., at 21.8 cts.; total $95,920.

Drainage — Baraboo, Wis. — Following are bids opened May 25 for constructing drainage system: Sweeney Bros., Reedsburg, $13,800; Pastoret Constr. Co., Duluth, Minn., $16,000; Thornton Bros., St. Paul, Minn., $16,600. H. E. French, City Engr.

★**Jackson, Minn.**—Contract for constructing judicial ditches awarded as follows: No. 31 to Wm. Neuman, of Lakefield, at $17,300; No. 37 to C. R. Mitchel, Lakefield, at $6,953. A. D. McKillar, Co. Aud.

★**Pipe—Sunnyside, Wash.**—Contract for concrete pipe in Drainage Dist. No. 24 (bids opened May 28) awarded to A. B. Fosseen & Co., North Yakima, at $4,645. J. O. Greenway, Drainage Engr.

★**Dam—Oakland, Cal.**—Contract reported awarded by City Council for improvement of 12th St. dam from Fallon St. to Lake Shore Boule., to Blake Bros., at $27,756.

ELECTRIC RAILWAYS

PROPOSED WORK.

Albany, N. Y.—United Traction Co. contemplates spending $165,000 for improvements to lines.

Charleston, V. Va.—Charleston Interurban R.R. Co. to spend about $750,000 for constructing extension of line from Charleston to Montgomery, distance 24 miles.

Parkersburg, W. Va. — Charleston, Parkersburg & Northern R.R. Co. will construct electric railway between Charleston and Parkersburg.

Vincennes, Ind.—Plans are being considered to build railway from Bicknell to Vincennes, via Bruceville and Aliceville. John T. Oliphant, Vincennes, is interested.

Galena, Ill.—Construction of an electric railway from Freeport via Pearl City, Kent to Dubuque, Ia., contemplated Frank J. Mueller, Secy. Galena Commercial Club is interested.

Joliet, Ill.—Plans are being considered by Aurora, Plainfield & Joliet Ry. Co. to double-track line on N. Chicago St. F. C. Eckmann, Gen. Mgr., Chicago.

Peoria, Ill.—Chicago, Peoria & Quincy Traction Co. contemplates spending about $3,000,000 for completing line, also erecting shops in Quincy.

Bristow, Okla.—Surveys are being made for railway to be constructed from Bristow to Drummond and from Bristow to Okmulgee. W. Mathews, St. Louis, Mo., said to be interested.

Los Angeles, Cal.—Plans are being made by Pacific Electric Ry. Co. to spend about $75,000 for improving double-track on American Ave., from Anaheim St. to 6th St., Long Beach, 3 miles.

San Francisco, Cal.—Plans are being considered by Public Utilities Com. of Supervs. for an extension across Golden Gate Park, San Francisco.

Regina, Sask.—Council voted to spend $10,000 for extending Regina Municipal Ry. on Young St.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Brooklyn, N. Y.**—Contract awarded by Public Service Comn., 154 Nassau St., New York, for construction and station finish of 4th Ave. Subway, Brooklyn, a part of Bway.-4th Ave. Rapid Transit R.R., from center of Flatbush Ave. extension to a point on 4th Ave. about 150 ft. south of 42d St., to D. C. Serber, 1123 Bway., New York, at $40,676 (bids opened May 28). Unit prices in Engineering Record of June 5.

RAILROADS

PROPOSED WORK.

Kansas City, Mo.—The Connecting Railroad of Kansas City has received authority from the state Pub. Service Comn. to reconstruct Kansas City stock yards and put in 7 miles of track and terminals, the order to become effective June 15. Two years ago the Connecting Railroad was incorporated for $1,000,000 and applied to the Commission for authority to make these improvements. The Commission retains full jurisdiction over improvement, until completed and approved; cost about $1,000,000.

Hood River, Ore.—It is reported that the Oregon-Washington Railroad & Navigation Co. (J. R. Holmes, Ch. Engr., Portland), is about to begin work of ballasting with crushed rock 19 miles of main line, between Hood River and The Dalles; cost estimated at $72,000.

Roseburg, Ore.—Citizens voted June 3 to issue $300,000 bonds to aid Kendall Bros., of Pittsburgh, Pa., to construct railroad from Roseburg to line of the Cascade National Forest Reserve on North Umpqua River, and erect sawmill in Roseburg. Kendall Bros.' investment will approximate $1,250,000.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Walnut Springs, Tex.**—Contract reported awarded by Glen Rose & Walnut Springs Railroad Co. to the Railroad Constr. Co. of New York, to build a section of its proposed line. This company proposes to build a line from Walnut Springs through Glen Rose and north to Ft. Worth. D. Morris, Ch. Engr., Walnut Springs.

PUBLIC BUILDINGS AND SCHOOLS

PROPOSED WORK.

Portland, Me.—All bids opened April 20 by Superv. Archt., Washington, D. C., for steerage barracks and storehouse at U. S. Quarantine Station rejected.

Boston, Mass.—Massachusetts Inst. of Technology will not let contract until fall or winter for proposed Walker Memorial; it will be semi-fireproof and cost $250,000. Architect, W. W. Bosworth, 527 Fifth Ave., New York.

Lawrence, Mass.—Trus. Essex County Independent Agricultural School have tentative plans for $100,000 building. Justin E. Varney, of Lawrence, is member of Comn. in charge.

Springfield, Mass.—Plans and specifications desired until July 1 by Bldg. Com., Eastern States Agricultural and Industrial Exposition, Inc. (C. B. Whitney, Chmn.) for a combination grandstand and exhibition hall.

Middletown, Conn.—The sum of $125,000 has been given to Wesleyan Univ. for dormitory purposes.

Bridgewater, Pa.—Boyd & Stewart, Archts., Pittsburgh, will soon let contract for erecting 10-room grade school; cost, $25,000.

Carrollton, Pa.—High school to be erected in Blacklick Township.

Philadelphia, Pa.—Plans being prepared by Philip Johnson, Land Title Bldg., for a 3-story concrete, stone and steel hospital building, 36 x 42 ft., to be erected at 10th and Reed Sts. for Moyamensing Prison.

Municipal Court has plans prepared for remodeling Magdalen Home, 21st and Race Sts., for Social Service Divisions of new court; cost, $50,000.

Pittsburgh, Pa.—Bd. Educ. will soon let contract for erecting South Hills Bailey High School on Ruth and Eureka Sts.; cost, $850,000.

Uniontown, Pa.—Bonds for $25,000 for school improvements sold.

Yatesboro, Pa.—School Bd. of Cowanshannock Township voted to erect a 10-room brick school.

Washington, D. C.—Bureau of Standards soon to let contract for erecting chemical laboratory on Pierce Mill Road, near Connecticut Ave.; cost, $200,000. Donn & Deming, Washington, D. C., Archts.

Green Bank, W. Va.—Bd. Educ. contemplates erecting $30,000 high school.

Logan, W. Va.—Plans being prepared for 3-story brick, stone and terra cotta hospital for City Hospital Co.; cost, $25,000.

Pennsboro, W. Va.—School bonds for $30,000 to be sold June 19 by J. A. Wooddell, Secy. Clay Dist.

Lafayette, Ga.—County Bd. Roads & Revenues, accepted plans for $75,000 court house.

Jackson, Miss.—Citizens voted $65,000 school improvement bonds, including erection of a new school.

Nashville, Tenn.—Bd. Comrs. voted to issue $625,000 school bonds.

Marion, O.—All bids opened June 3 by Bd. Educ., Pleasant Township (G. E. Waddell, Clk.), to furnish material and erect brick and stone school rejected. Plans being changed. Lowest bidder: L. D. Hetrick & Bro., Columbus, $28,228. Marriott, Allen & Hall, Archts., 20 E. Broad St., Columbus.

Hammond, Ind.—Plans being prepared by Jos. T. Hutton, of Hammond, for industrial high school.

Mishawaka, Ind.—Township Trustees taking steps to erect consolidated school for Penn Township; cost, $30,000.

Alton, Ill.—State Bd. Administration, Springfield, has under consideration plans for an addition to Illinois State Hospital here.

Chicago, Ill.—At election June 7, press reports state, citizens voted $1,000,000 county hospital and morgue bonds and $1,000,000 for improvement of Warren's Woods, a new park of the West Side system. Rejected $2,500,000 bonds for jail and Criminal Court building and $200,000 for completion of 9th and 10th floors of county building.

Milwaukee, Wis.—Plans submitted to School Bd. for $75,000 addition to Ring St. School.

Sheboygan, Wis.—New high school, costing $150,000, contemplated.

Sheboygan, Wis.—City Hall Special Com. adopted revised plans for 2-story $115,000 city hall.

Brighton, Ia.—Citizens voted $25,000 bonds to erect a high school.

Mason City, Ia.—Tentative plans submitted by Felt & Co., Kansas City, Mo., for $300,000 high school.

Sioux City, Ia.—Bd. Trus. Morningside College considering replacing with a $25,000 structure conservatory building destroyed by fire.

St. Paul, Minn.—Site at Cedar St. and East Central Ave. secured by Historical Society for $500,000 building. State Bd. Control interested. Plans to be prepared by Clarence Johnston, State Archt., St. Paul.

Seward, Neb.—High school to be erected here; cost, $50,000. Address Bd. of Educ.

Kansas City, Mo.—Citizens voted following June 1: $125,000 for fire station and equipment; $125,000 to enlarge hospital accommodations; $125,000 suitable quarters for detention of women prisoners; $700,000 for enlarged approaches to Union Station; $125,000 for police station and municipal courts; $40,000 for public comfort stations.

Tulsa, Okla.—Election will soon be held to vote on issuing $125,000 bonds to erect city hall.

Rocky Ford, Colo.—School costing $25,000 contemplated. Address School Bd.

Trinidad, Colo.—Wm. & I. H. Rapp, of Trinidad, are architects for the court house.

Portland, Ore.—Plans for group of buildings for St. Helen's Hall, cost $75,000, prepared by Doyle & Patterson, Worcester Bldg.

BIDS DESIRED.

Brooklyn, N. Y.—Until June 16 by State Hospital Comn., Albany, for rebuilding old wall in main building, Long Island State Hospital, Brooklyn. Lewis F. Pilcher, State Archt., Albany.

About July 1 by Edwin M. Adelsohn, Archt., 1776 Pitkin Ave., for erecting one 5-story fireproof brick, concrete and steel building for Brownsville and East New York Hospital, 122 Glenmore Ave. Cost about $100,000.

Buffalo, N. Y.—Until June 17 by F. G. Ward, Comr. Pub. Wks., for erecting an 8-room brick addition to present school in Dist. No. 54, including ventilating, heating, etc.

Rochester, N. Y.—Until June 21 by Bd. Educ. (J. S. Mullan, Secy.) for erecting addition to the John Walton Spencer School No. 16 on Post St. Edwin S. Gordon, School Archt.

Blairsville, Pa.—Until June 16 by Bd. School Controllers, for furnishing material and erecting high school. C. C. & A. L. Thayer, Archts., New Castle.

Greencastle, Pa.—Until June 16 by Bd. School Dirs. (C. F. Fletcher, Secy., 203 S. Washington St.), for furnishing material and erecting school at Washington and Franklin Sts. M. I. Kast, Archt., Harrisburg.

Muncy, Pa.—Until June 30 by Bldg. Comn., care Frank Smith, Secy., State Bd. Charities, Harrisburg, for erecting new buildings (cottage system), known as the administration building, and 4 cottages for Industrial Home for Women, Muncy. Horace Trumbauer, Archt., Land Title Bldg., Philadelphia.

Renovo, Pa.—Until July 1 by the Bd. Educ. (C. W. Weeks, Secy.), for furnishing material and erecting a high school, including ventilating, heating and plumbing, advertised in Engineering Record. Woodnutt & Schmoll, Archts., 150 W. 4th St., Williamsport.

Chapel Hill, N. C.—Until June 30 by N. W. Walher, Secy. School Bd., for erecting graded school, from plans of C. C. Hook, of Charlotte; cost about $35,000.

Savannah, Ga.—Until July 6 by City Clerk for erecting public library, from plans of W. H. Witcover, of Savannah.

Tampa, Fla.—Reported desired until June 14 by County Bd. Pub. Instruction (Wm. Schneider, Chmn.), for erecting 2 junior high schools. Separate bids desired on heating; also until June 15 for erecting Tampa Heights school.

Lawrenceburg, Ky.—Reported desired until June 22 by J. S. O'Dell, Chmn. Fiscal Court, for erecting 2-story and basement court house; cost $60,000. Joseph & Joseph, Archts., Louisville.

Barberton, O.—Reported desired until June 21 by Bd. Educ., for erecting a 2-story and basement, 101 x 207 ft., high school. Probable cost $115,000. Harpster & Bliss, Archts., Akron.

Cincinnati, O.—Reported desired until June 17 by Philipp Fosdick, Dir. Pub. Service, for erecting 2-story bath house cost $28,000; Louis G. Bittoe, Archt., Provident Bank Bldg.

Indianapolis, Ind.—Until July 20 by Bd. School Comrs. (C. E. Cleland, Bus. Dir.) for erecting central library building on St. Clair and Meridian Sts. Paul B. Cret and Zantzinger, Borie & Medary, Assoc. Archts., 139 S. 15th St., Philadelphia, Pa.

Walton, Ind.—Until June 26 by D. A. G. Coblentz, Trus, Tipton Township, for erecting a 2-story and basement, brick and stone grade and high school. Layton Allen, Archt., Lombard Bldg., Indianapolis.

Brown City, Mich.—Until June 16 by Bd. Educ. for erecting high school, including ventilating, heating and plumbing. Jos. E. Mills & Son, Archts., Kresge Bldg., Detroit.

Hastings, Mich.—Reported desired until June 22 by Wm. L. Shulters, Hastings, for 2-story and basement brick and reinforced concrete school; cost $80,000. R. A. Le Roy, Archt., Kalamazoo.

Sandusky, Mich.—Reported desired until June 21 by County Clerk for erecting a 3-story court house. Jos. E. Mills & Son, Archts., 1305 Kresga Bldg., Detroit.

Chicago, Ill.—Until June 16 by Com. on Bldgs. and Grounds, Bd. Educ., for erecting Carl Schurz high school. A. F. Hussander, Archt., Tribune Bldg.

Herrin, Ill.—Until June 21 by Bd. Educ. (W. L. Smith, Secy.) for furnishing material and erecting school. N. S. Spencer & Son, Archts., Champaign.

Fairmont, Minn.—Until June 22 by Bd. Educ. (C. A. Porter, Secy.) for furnishing material and erecting high school, including ventilating and heating, sewers, plumbing, gas fitting, etc. Grant C. Miller, Fullenwider & Dowling, Archts., 6 N. Michigan Ave., Chicago.

Odessa, Minn.—Until June 19 by Bd. Educ. School Dist. No. 24 (H. H. Reindl, Clk.), for erecting high school; separate bids on heating, plumbing, etc. Edwins & Edwins, Archts., 911 Northwestern Bldg., Minneapolis.

St. Cloud, Minn.—Until June 15 by State Bd. Control, St. Paul for steel and c. i. work for stairs, galleries, steel plate doors, etc. and 160 cell fronts for cell house D, State Reformatory, St. Cloud. C. H. Johnston, State Archt., Capital Bank Bldg., St. Paul.

Clay Center, Kan.—Until June 17 by Bd. Educ. for erecting McKinley School, including heating, plumbing, etc. J. H. Felt & Co., Archts., Kansas City, Mo.

Fedora, S. D.—Until June 29 by B. R. Laird, Clk. Bd. Educ. for erecting 2-story and basement fireproof school; separate bids on heating, plumbing, etc. Geo. F. Fossum, Archt., Aberdeen.

Excelsior Springs, Mo.—Until June 14 by Bd. Educ. for erecting addition to and remodeling high school including heating. J. H. Felt & Co., Archts., Kansas City, Mo.

Lawson, Mo.—Until June 15 by Bd. Educ. for erecting school, including heating, plumbing, etc. J. H. Felt & Co., Archts., Kansas City.

Dallas, Tex.—Reported desired until June 15 by Bd. Educ., for erecting a high school, 4 stories, reinforced concrete, brick and stone exterior. Probable cost $200,000.

Ramona, Okla.—Reported desired until June 23 by Bd. Educ. (O. Neville, Clk.) for erecting a 2-story brick building for manual training and gymnasium. Walton Everman, Archt., Bartlesville, Okla.

Portland, Ore.—Reported desired until June 17, by R. F. Thomas, School Clk., for erecting $100,000 first unit to the Franklin High School, E. 54th St.; 2-story structure, frame exterior and brick interior.

Berkeley, Cal.—Reported desired by Council for erecting fireproof concrete intermediate school on Telegraph Ave. and Stuart St.; cost $90,000.

PRICES AND LETTINGS.

★Indicates award of contract.

★Brattleboro, Vt.—Contract for erecting U. S. Post Office awarded to E. C. Abbott Constr. Co., New York, at $101,773.

★Lawrence, Mass.—Contract for erecting Central Grammar School awarded A. D. Shufelt at $209,707.

★West Springfield, Mass.—Contract for erecting high school awarded to M. J. Walsh & Son, Holyoke, at $71,660; heating, Richard & Chard, Stamford, Conn., $8,565; plumbing, J. J. Cotter, Springfield, $3,638.

★Mineola, L. I., N. Y.—Contract for erecting high school awarded Kirwin & Esterbrook Co., of Hempstead. Cost, $50,000.

★Utica, N. Y.—Contract for erecting 4-story, 108 x 45-ft. Homeopathic Hospital on Genesee and Newell Sts. awarded John F. Hughes Constr. Co. for the masonry, and R. G. Lloyd Co., Inc., for carpenter work.

★North Bergen, N. J.—Contracts for erecting school No. 5 awarded as follows: Masonry, also concrete work, J. J. Marione Co., North Bergen, $56,880 and $9,500 respectively; iron work, Fagan Iron Wks., Hoboken, $5,137; heating and ventilating, W. L. Carlough, $14,500; roofing, W. H. Gulschmidt, $1,557.

★Harrisburg, Pa.—Contract for erecting dormitory at Harrisburg Academy awarded to Aug. Wildman, of Harrisburg; cost, $27,000.

★Philadelphia, Pa.—Three lowest bids opened June 4 by Property Com. Bd. Educ. for erecting John Hay School: McCloskey & Bahls, $81,825 (awarded contract); Wm. R. Dougherty, $82,728; H. Wehmeyer, $82,843. Lowest bid for heating, S. Faith & Co., $15,777.

★Front Royal, Va.—Contract for erecting buildings at this post awarded to M. F. Normoyle & Son, Roanoke, at about $100,000.

★Huntington, W. Va.—Contract for erecting brick and concrete school awarded to W. C. Handshy & Son, Zanesville, O., at $220,000.

★Salem, W. Va.—Contract for erecting 3-story brick and stone building at Salem College awarded to Holbert & Spedden, of Fairmont; cost, about $30,000.

Laurel, Miss.—Following are four lowest bids opened May 18 by Superv. Archt., Washington, D. C., for constructing U. S. Post Office at Laurel, (a) limestone, (b) sandstone: John G. Unkefer & Co., Minerva, O., (a) $68,065; C. C. Eure, Hattiesburg, Miss., (a) $70,483, (b) $71,783; W. H. Fissel & Co., New York, (a) $70,700, (b) $75,700; Geo. A. Shaul, Seneca, Kan., (a) $71,246; Algernon Blair, Montgomery, Ala., (b) $75,500; Colonial Constr. & Supply Co., Charlottesville, Va., (b) $76,184.

★Contract for erecting above post office awarded to John G. Unkefer & Co., Minerva, O., at $68,065 for limestone.

Alliance, O.—Lowest bid opened for erecting city hospital submitted by J. H. Wells, Cleveland, at $47,915.

Kent, O.—Following 3 bids opened May 22 by Normal Trus. for heating and power plant building: R. H. Evans & Co., $71,953; E. H. Walker, Canton, $76,710, and Cleveland Fireproofing Constr. Co., $79,297.

★Lewis Center, O.—Contract for erecting school in Orange Township awarded to D. E. Henke & Co. at $24,534. F. L. Packard, Columbus, Archt.

★Oberlin, O.—C. F. Doolittle, Secy. Oberlin College, writes contract for erecting art building, 1-story, 100 x 100 ft., has been awarded to John H. Parker Co., of New York.

★Bessemer, Mich.—Contract for erecting addition to court house and remodeling present building awarded to Herman Gundlach, of Houghton, at $65,000.

★Detroit, Mich.—Contract for 4-story brick St. Mary's Hospital awarded to John Finn, at $50,000.

La Salle, Ill.—Following are four lowest bids opened May 26 by Superv. Archt., Washington, D. C., for complete construction U. S. Post Office (a) limestone, (b) sandstone: Callahan-Mandl Co., Chicago, Ill., (a) $68,811, (b) $70,000; Geo. W. Stiles Constr. Co., Chicago, (a) $69,342; Chas. W. Gindele Co., Chicago, ((a) $67,000, (b) $71,800; Balkin Constr. Co., Chicago, (a) $66,053; Colonial Constr. & Supply Co., (b) $73,259; Thos. W. Cissel, Wooster, O., (b) $75,767.

★Urbana, Ill.—Contract awarded June 1 by Jas. B. Dibelka, State Archt., 130 N. 5th Ave., Chicago, to A. W. Stoolman, of Champaign, for general, electrical, ventilating and heating and plumbing contracts for School of Education Ceramics and Vivarium buildings at Urbana.

★Milwaukee, Wis.—Contract for erecting Coast Guard Station and accessories awarded H. J. Payne, Milwaukee, at $24,820. Bids opened May 27 by U. S. Coast Guard, Washington, D. C.

Missouri Valley, Ia.—Four bids opened by School Bd. for erecting high school: Kudson Co., Des Moines, $58,073; Norgard Co., Council Bluffs, $58,073; Mertem Co., Sioux City, $59,250, and Gould & Son, Omaha, $60,107.

★Alexandria, Minn.—Contract awarded National Constr. Co., Alexandria, at $53,969, to erect brick high school. E. F. Bromhall, Archt., 710 Alworth Bldg., Duluth.

★Carlton, Minn.—Contracts for erecting 3-story brick school in Consolidated Dist. No. 2 awarded National Constr. Co., of Alexandria, at $28,080; heating and ventilating, F. S. Spencer, Minneapolis, $5,845; plumbing, Stack Bros. Co., Duluth, $3,183.

★Hayward, Minn.—Contract for erecting school awarded G. Schwartz & Co., Rochester, at $42,750.

Havre, Mont.—Lowest bids opened May 25 by Co. Comrs. for erecting court house: C. Haverlandt, Havre, $114,450; Olson & Johnson, Inc., Missoula, $115,880; and Horton & Willits, Great Falls, $118,970.

Chillicothe, Mo.—Two lowest bids opened June 3 by Superv. Archt., Washington, D. C., for constructing U. S. Post Office were: W. H. Fissel Co., New York, $87,000, limestone, and $91,200 sandstone: Chas. W. Gindell Co., Chicago, Ill., $88,000 and $90,000, respectively.

★Bryan, Tex.—Contract for erecting U. S. Post Office awarded to Algernon Blair, Montgomery, Ala., at $39,277.

★San Antonio, Tex.—Contracts for erecting county Juvenile Home awarded as follows: General contract, Walsh & Burney, at $22,372; heating and plumbing, Eagle Plumb. Co., $2,750.

★Everett, Wash.—Contract for erecting U. S. Post Office reported awarded to Hendrickson & Co., of Seattle, at $111,519.

Keyport, Wash.—Following four lowest bids opened May 29 by Superv. Archt., Washington, D. C., for fireproof torpedo storehouse at Naval Torpedo Station, Keyport (bidders all of Seattle): Martin & Dugan, Northern Bank Bldg., $36,513; Erickson & Larson, $37,246; Pearson Constr. Co., $37,925; Butler Constr. Co., $39,900.

Longview, Tex.—Following four lowest bids opened June 2 by Superv. Archt., Washington, D. C., for complete construction of U. S. Post Office (a) limestone, (b) sandstone: Texas Constr. Co., San Antonio (a), $33,030, (b) $33,280; V. E. Taylor, Ennis (a), $36,250, (b) $36,950; Geo. A. Shaul, Seneca, Kan. (a), $38,790; Kreipke Shafter Constr. Co., El Reno, Okla. (a), $39,950; Richardson Eng. & Constr. Co., Bainbridge, Ga. (b), $42,470; C. V. Beatty, East Liverpool, O. (b), $42,600.

★**Seattle, Wash.**—Contracts for erecting Juvenile Detention Home at Bway. and Spruce Sts. awarded by Co. Comrs. as follows: General contract, T. M. Ryan & Son, at $26,705; plumbing, Rautman Plumb. & Htg. Co., $2,161; heating, Queen City Htg. Co., $1,156.

★**Huntington Beach, Cal.**—Contract awarded to Harvey Garber, Orange, at $40,694, for erecting brick grammar school; heating and ventilating, Foss & Jones, Pasadena, $4,157. J. C. Smith, Archt., Los Angeles.

Los Angeles, Cal.—Lowest bids for Owensmouth High School as follows: General contract, Chas. W. Kent & Son, 429 S. Grand Boule., Glendale, $62,200; heating and ventilating, Hoagland-Lakin Electrical & Eng. Co., $6,363. Lowest for Franklin High School: Los Angeles Planing Mill Co., 1812 Industrial St., $134,616.

★Contract for erecting 2-story brick 66th St. School awarded to Irvine & Dow, 618 American Bank Bldg., at $35,483.

San Francisco, Cal.—Following lowest bids opened June 5 by Bd. Wks. for erecting Juvenile Detention Home on W. Mission St.: General contract, Pacific Contract Co., $91,325; steel work, Dyer Bros., $31,350; plumbing, H. Lawson, $14,350; elevators, Otis Elevator Co., $5,885; heating and ventilating, Atlas Co., $3,990.

★**Pocatello, Idaho.**—D. F. Murphy & Co. have contract for erecting wings to high school and repairing present building at $119,000.

PRIVATE BUILDINGS

PROPOSED WORK.

Boston, Mass.—Alfred H. Howard will erect on Harrison Ave. and Beach St. an 8-story brick mercantile building; cost, $200,000.

Binghamton, N. Y.—Plans filed for 3-story tile and cement store and apartment house to be erected at Exchange and Susquehanna Sts. by Saml. Levine. Mather & Carleton, Archts., Binghamton; cost, $25,000.

Buffalo N. Y.—Plans being prepared by Esenwein & Johnson, Ellicott Sq. Bldg., for a 12-story and basement office building and club house at Pearl Niagara and Franklin Sts. for Buffalo Athletic Club. S. B. Nye, Chmn. Bldg. Co., 80 Erie County Bank Bldg.

N. Y. Central R. R. (G. W. Kittredge, Ch. Engr., N. Y City) reported considering erecting new passenger station at Eagle St crossing.

New York, N. Y.—Neville & Bagge, 105 W. 40th St., architects for 12-story apartment house which McMorrow Engr. & Constr. Co., 271 West 125th St., will erect at West End Ave. and 99th St.; cost $1,000,000.

Plans for 12-story brick and limestone store and loft building at 35 W. 37th St. to be prepared by Herman Lee Meader, 2 W. 33d St. Leslie R. Palmer, owner, 68 William St.

Plans completed by Ogden Cadman, 340 Madison Ave. for 6-story fireproof brick and limestone residence to be erected at 5th Ave. and 96th St. for Lucy Drexel Dahlgren; cost, $75,000.

Plans filed for following buildings: 16-story fireproof storage, store and office building at 7th Ave. and 49th St. for Fred. S. Godfrey, cost $400,000, Arthur Loomis Harmon, Archt., 3 W. 29th St.; two 5-story brick tenements at Ellwood St. and Bway. for Haven Constr. Co., total cost $150,000, Benj. W. Levitan, Archt., 20 W. 31st St.; two 6-story brick tenements at Bathgate Ave. and 172d St. for Benenson Realty Co., total cost $100,000, Tremont Architectural Co., Archts., 401 Tremont Ave.; 5-story brick tenement at Kingsbridge Ave. and 234th St. for Seabury Bldg. Co., cost $55,000, M. W. Del Gaudio, Archt., 401 Tremont Ave.; 5-story brick tenement at College Ave. and 170th St., also two 5-story brick tenements at Findlay Ave. and 169th St. for C. J. Cary Bldg. Co., total cost $120,000, John P. Boyland, Archt., 2526 Webster Ave.; 5-story brick tenement at Southern Boule. and 167th St. for John O'Leary, 991 E. 167th St., cost $50,000, John P. Boyland, Archt., 2526 Webster Ave.

Rochester, N. Y.—Plans prepared by W. J. Brockett, Rochester, for 4-story brick and stone labor temple to be erected on N. Fitzhugh St. by Labor Unions of city. Cost, $100,000.

Brookville, Pa.—Plans for a 2-story $30,000 Y. M. C. A. building to be prepared by Harrington & Howard, of Du Bois.

Fountain Springs, Pa.—Fountain Springs Country Club intends erecting $40,000 club house. W. K. Lord, Secy., Mt. Carmel.

Germantown, Pa.—First Presbyterian Church, West Chelten Ave., intends erecting a $60,000 parish house. Rev. W. Beatty Jennings, Pastor.

Philadelphia, Pa.—Plans being prepared by Stearns & Castor, Stephen Girard Bldg., for alterations to 6-story brick store at 13th and Sansom Sts. for Louis Stecher.

Scottdale, Pa.—First United Brethren Church voted to erect $60,000 edifice on Market St. B. F. Keister, Chmn. Bldg. Com.

Logan, W. Va.—Masonic Assoc. contemplates erecting opposite Court House 4-story brick and stone temple; cost, $40,000.

Birmingham, Ala.—Wm. C. Weston, Birmingham, selected to prepare plans for concrete and terra cotta building to be erected on 2d Ave., to be occupied by Hann Shoe Co.

Cleveland, O.—Euclid Ave. Carnegie Co. secured permits for erecting 11 apartment houses on Euclid Ave. and E. 66th St., to cost $350,000. Plans being prepared by Fulton & Taylor, Permanent Bldg., for $600,000 hotel which this company intends erecting later on this site in connection with the apartment houses.

Plans prepared by Geo. F. Hammond, 4220 Prospect Ave. for 10-story addition, brick, steel and concrete, to Gilsey Hotel. R. E. Gill, one of the owners.

Plans being prepared by Wm. S. Lougee, American Trust Bldg., for market house which South Side merchants propose erecting on W. 25th St. and Selzer Ave.; cost, $75,000.

Elks will soon let contract for erecting on High and Mill Sts. $75,000 lodge building. G. F. Burkhardt, Chmn. Bldg. Com.

Columbus, Ind.—Masons reported considering erecting a $30,000 temple.

Detroit, Mich.—Permit issued for 6-story reinforced concrete garage and warehouse at Beaubien St. and Adams Ave. for J. L. Hudson; cost, $80,000. Smith, Hinchman & Grylls, Archts., Detroit.

Port Huron, Mich.—Reported Woman's Benefit Assoc. (Maccabees) considering erecting $150,000 home here.

Milwaukee, Wis.—Plans to be prepared by Martin Tullgren & Sons, Merrill Bldg., for 2-story reinforced concrete, steel and brick theater, store and flat building to be erected on Downer Ave. and Belleview Pl. by Read & Neacy Investment Co.; cost, $65,000.

Sioux City, Ia.—Bldg. Com. soon to let contract for erecting $100,000 First Methodist Church at 19th and Nebraska Sts. Beuttler & Arnold, Archts., Sioux City.

Whitehall, Mont.—Erection of Masonic Temple and business building combined contemplated.

St. Louis, Mo.—J. H. Farish & Co., 119 N. 8th St., reported interested in 16-story brick, stone and terra cotta hotel which it is proposed to erect on 9th and Washington Sts.

Northern Investment Co. will erect for Scudders-Gale Grocer Co., at 12th and Poplar Sts., a 4-story 180 x 155-ft. building.

Ft. Worth, Tex.—Lone Star Camp No. 2, Woodmen of the World, contemplates erecting 7-story $200,000 hall.

Seattle, Wash.—Plans being prepared for 5-story and basement apartment house which Ernest Carstens, Pres. German-American Bank, Seattle, intends erecting at Boren Ave. and Denny Way; cost, $70,000.

Plans being prepared by Bebb & Gould, Denny Bldg., for 4-story and basement, 45 x 108-ft. reinforced concrete fireproof $50,000 building to be erected by Puget Sound News Co. at 2d Ave and Virginia St.

Tacoma, Wash.—Plans completed for $400,000 passenger station for Chicago, Milwaukee & St. Paul R. R. (C. F. Loweth, Ch. Engr., Chicago, Ill.).

Oakland, Cal.—Reported steps being taken by T. H. Williams, 2845 Webster St., to erect at Williams St. and San Pablo Ave. a 10-story store and hotel.

Tucson, Ariz.—Plans prepared by Trost & Trost, El Paso, Tex., for 2-story Masonic Temple on Scott St.; cost $50,000.

BIDS DESIRED.

Columbus, O.—Reported desired until June 20 by D. Riebel & Sons, Archts., New First Natl. Bank Bldg., for erecting 2-story reinforced concrete building on N. 4th St. and 5th Ave., for S. D. Budd Dairy Co.; cost $50,000.

Ames, Ia.—Reported desired until June 14 by Proudfoot, Bird & Rawson, Archts., Des Moines, for erecting 4-story and basement hotel for H. Munn and P. Sheldon; cost $100,000.

Northwood, Ia.—Until June 16 by E. H. Dwelle, Treas. First Baptist Church for erecting church. Alban & Lockhart, Archts., Endicott Bldg., St. Paul, Minn.

Albert Lea, Minn.—Until June 24 by H. J. Harm, Albert Lea, for erecting 6-story fireproof office building, including heating, plumbing, etc. Hoffman & Mosse, Archts., Rochester, Minn.

Biscay, Minn.—Until June 22 by State Bank of Biscay for erecting bank building.

Doland, S. D.—Until June 14 by State Bank of Doland, care of Merchants Bank, for erecting bank building. F. H. Ellerbe, Archt., Endicott Bldg., St. Paul, Minn.

Little Rock, Ark.—Until June 15 by J. P. Almand, Archt., Southern Trust Bldg., for erecting 2-story and basement brick school to be known as U. M. Rose School.

Lewistown, Mont.—Until June 21 by V. J. Van Den Broeck for erecting the R. C. Church. Link & Hair, Archts., Bank of Fergus County Bldg.

Vancouver, B. C.—Reported desired until June 15 by Somerville & Putnam, White Bldg., Seattle, Wash., for erecting a 3-story reinforced concrete building at Pender and Granville Sts., Vancouver, B. C., for the Merchant Bank of Canada. Probable cost, $60,000.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Brooklyn, N. Y.**—Contract for erecting 2-story fireproof brick and limestone theater at 5th Ave. and 43d St., for One Hundred Ninetieth Street Holding Co. awarded Geo. Thomas, 32 E. 42d St., New York; cost, $100,000. Thos. W. Lamb, Archt., 644 8th Ave., New York.

★**New York, N. Y.**—Contract for erecting 6-story fireproof limestone store and loft building at 5th Ave. and 50th St. for A. De Pinna & Co., awarded Jacob A. Zimmermann, 18 E. 41st St.; Henry Otis Chapman, 334 5th Ave., Archt.

★**Chester, Pa.**—Contract awarded to Geo. Hogg, 1634 Sansom St., Philadelphia, for erecting a 4-story hotel at 3d and Market Sts. for Geo. Shober; cost, $25,000.

★**Philadelphia, Pa.**—Contract for erecting 6-story reinforced concrete steel and brick loft building at 831 Cherry St. awarded to Wm. Linker Co., 608 Heed Bldg.

★Contract for erecting 12-story concrete, stone, steel and terra cotta apartment house at 17th and Walnut Sts., awarded to Cramp & Co., Denckla Bldg., at about $250,000.

★**Fairmont, W. Va.**—Contract for erecting concrete, brick and steel freight depots for Monogahela Ry. Co., one at Fairmont, and the other at Morgantown, awarded to Crossan Constr. Co. and Christman Goodwin Fdry. Co., respectively.

★**Bucyrus, O.**—Contract for erecting Eagles lodge building awarded to Geo. B. Hicks, of South Charleston, at $34,050. Next 3 lowest bidders: M. Rabbit & Sons, Toledo, $34,650; S. Small & Sons Co., Mansfield, $34,969; and E. Converse, Massillon, $35,633.

Ft. Dodge, Ia.—Lowest bid opened for erecting depot at 11th St. and Central Ave. for Ft. Dodge, Des Moines & Southern Ry. submitted by Jensen Constr. Co., of Ft. Dodge, at $25,761.

★**Duluth, Minn.**—Contract for erecting 4-story fireproof building for Carwin, Lenning, Brown Wholesale Grocery Co. awarded to W. J. Zitteroll, Webster City, Ia.; cost, $200,000.

★**Omaha, Neb.**—Contract for erecting 8-story, 66 x 132 ft., World-Herald Building, at 15th and Farnam Sts., awarded to J. C. Mardis, Omaha.

★**Galveston, Tex.**—Contract for erecting cotton shed at 46th to 48th Sts. Avenues F and G awarded to Eubank & Dibrell, of Galveston, by Southern Products Co.; cost $100,000.

★**San Jose, Cal.**—Contract for pile foundations for Y. W. C. A. building awarded to MacArthur Concrete Pile & Found. Co., 11 Pine St., New York. Morrison Bros., Santa Clara, General Contractors. Architect, Julia Morgan, San Francisco.

NEW INDUSTRIAL PLANTS

PROPOSED WORK.

Cambridge, Mass.—L. E. Knott Apparatus Co. will erect on Carlton and Amherst Sts. a $100,000 brick factory.

Long Island City, L. I., N. Y.—Plans filed for 4-story brick factory to be erected at 14th and Governor Sts., for Fredk. Ayer; cost, $60,000; J. Odell Whitenack, Archt., 231 W. 18th St., New York.

Erie, Pa.—Plans prepared by S. Fireston, Rochester, for a 1-story 100 x 70-ft. fireproof addition to machine shop at 19th and Liberty Sts. for Continental Rubber Wks.

Wilkes-Barre, Pa.—Plans being prepared by Sturdevant & Poggi, Wilkes-Barre, for 1-story brick and concrete colliery shops for Lehigh & Wilkes-Barre Coal Co.; cost, $200,000.

Baltimore, Md. — Reported contracts soon to be let by Terminal Freezing & Htg. Co. for improvements to S. Eutaw St. plant; cost $50,000.

Colgate, Md.—National Yeast Co. will erect 4 brick buildings; cost, $75,000.

Bladenboro, N. C.—Bladen Mfg. Co. formed to erect cottonseed oil mill. R. L. Bridger and C. C. Dunn interested.

Concord, N. C.—C. W. Johnston, of Charlotte, Pres. Highland Park Mills, reported interested in erecting a cotton mill here.

Columbus, Ga.—Public Utilities Co. of Trenton, N. J., reported to have secured site here to erect packing plant; cost, $60,000.

Dalton, Ga.—Crown Cotton Mills intends erecting new mill to join Mill No. 2.

Birmingham, Ala.—Birmingham Stove & Range Co. intends erecting a $100,000 factory here.

Gadsden, Ala.—Reported Gulf States Steel Co., Birmingham, contemplates erecting here by-product battery of ovens as well as a $600,000 plate mill.

Girard, Ala.—Reported Public Utilities Co., Trenton, N. J., will erect packing plant at Knight Station, Phoenix; cost, $60,000.

Huntsville, Ala.—Reported F. D. Moses, Trenton, N. J., and C. W. Olson, Chattanooga, Tenn., interested in packing plant and abattoir contemplated here.

Mobile, Ala.—Benj. J. Glazier Realty & Eng. Co., 38 S. Dearborn St., Chicago, Ill., reported planning erection of shipbuilding plant in this city to cost $5,000,000.

New Orleans, La.—Plans for the grain elevator, to cost $750,000, are to be prepared by Ford, Bacon & Davis, New Orleans.

Cleveland, O.—Permit issued for 6-story 218 x 52-ft. and 1-story 194 x 67-ft. addition to plant of National Acme Mfg. Co.; cost, $121,000.

Dayton, O.—Maxwell Motor Co. plans to erect new plant on site of present plant on Leo St.; cost, $100,000.

Detroit, Mich.—Plans prepared by A. A. Albrecht Co., of Detroit, for $25,000 reinforced concrete addition to plant of Detroit Screw Wks.

Jackson, Mich.—Briscoe Motor Co. secured site on Woodward Ave. and will erect automobile factories.

Minneapolis, Minn.—Reported Sheffield elevator, recently destroyed by fire, is to be rebuilt. B. B. Sheffield, Pres. Sheffield Elevator Co.

Portland, Ore.—Studebaker Corporation of America (E. R. Benson, Detroit, Mich., Vice-Pres.) reported contemplates erecting distributing plant here; cost, $75,000.

Roseburg, Ore.—See "Railroads."

Salt Lake City, Utah.—Reported Utah-Idaho Sugar Co. has secured site in West Jordan on which to erect a sugar factory; company also intends erecting warehouse at Blackfoot (Idaho) plant.

Rio de Janeiro, Brazil.—Armour & Co., 52 10th Ave., New York, N. Y., reported planning pier, terminal, refrigerating and packing plant here.

BIDS DESIRED.

Silver Creek, N. Y.—Reported desired by Foote, Headley & Carpenter, Archts., Rochester, for erecting 1-story and basement, 50 x 200-ft. factory, and power plant, 30 x 50 ft., both structural steel and brick, for Du Belle Grape Juice Co. (L. J. Dubelbeiss, Pres., Irondequoit); cost, $30,000.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Amsterdam, N. Y.**—Contract awarded to H. C. Green Co., for erecting 2-story and basement, 40 x 75 ft. brick and cement addition to box factory of Inman Mfg. Co.

★**Depew, N. Y.**—Contract awarded to John W. Cowper Co., Buffalo, for erecting a brick and steel 2-story 75 x 200 ft. factory for Gould Storage Battery Co.; cost $40,000. Ferguson Steel & Iron Co., Buffalo, has contract for structural steel.

★**Rensselaer, N. Y.**—Contract for erecting mill for Wm. Barnet & Son, to cost $75,000, awarded to Morris Kantrowitz, of Albany.

★**Marcus Hook, Pa.**—Contract reported awarded to W. W. Lindsay & Co., Harrison Bldg., Philadelphia, for erecting a 1, 2 and 3-story brick factory for United Roofing & Mfg. Co.; cost, $125,000.

MISCELLANEOUS

PROPOSED WORK.

Conduit or Wires—Lancaster, Pa.—It is proposed to spend about $300,000 on a conduit system, the conduits to be used for wires of Conestoga Traction Co. and Edison Electric Light Co.

Park Bonds—Chicago, Ill.—See "Public Buildings."

Parks, Subways, Etc.—Kansas City, Mo.—Citizens voted $450,000 June 1, for improvement of parks and parkways; $100,000 for improving Union Station Park; $15,000 for a subway under Gillham Road at 23d St. and $15,000 for an overhead crossing at 23d and Gillham Road, and $100,000 for improving channel and banks of Blue River.

Subway—Nanaimo, B. C.—Plans of City Engineer reported approved by City Council for subway under E. & N. Ry. at Comox Road; estimated cost $20,704, to include lowering 600 ft. of sewer and 500 ft. of water mains.

BIDS DESIRED.

Conduit—Boston, Mass.—Until June 16 by Patk. O'Hearn, Acting Comr. Pub. Wks., for constructing Mattapan Brook conduit in Delhi St., Dorchester. Surety $10,000.

Lumber—New York, N. Y.—Until June 16 by R. A. C. Smith, Comr. Docks, for Contr. 1456—Furnishing and delivering about 1,445,808 ft. B. M. sawed new yellow pine lumber.

Swimming Pool—Philadelphia, Pa.—Until June 17, by Board of Recreation, City Hall, for building swimming and wading pool at Waterview Recreation Park.

Inspection of Structural Steel—Washington, D. C.—Until June 24 by Jas. A. Wetmore, Acting Superv. Archt., Washington, D. C., for inspection of structural steel and iron work for buildings erected under the control of the U. S. Treasury Dept., from date of the award of this contract to the end of the fiscal year June 30, 1916.

Cement — Washington, D. C. — See "Waterworks."

Cement—Atlanta, Ga.—Until July 1 at U. S. Penitentiary, Atlanta, 5000 bbls. Portland cement.

Rock—New Orleans, La.—Until June 25 at U. S. Engr. Office, Queen & Crescent Bldg., New Orleans, for furnishing and delivering 25,000 tons rock.

Stone—Memphis, Tenn.—Until June 29 by Maj. E. M. Markham, Corps Engrs., U. S. A., Mississippi River Comn., 1st and 2d Dists., U. S. Engr. Office, Memphis, for furnishing and loading about 16,000 cu. yds. riprap stone on Government barges; also until June 30 for furnishing about 20,000 tons riprap stone, rail delivery.

Steam Shovel—Chicago, Ill.—Until June 18 by W. R. Moorhouse, Comr. Pub. Wks., to furnish and deliver f.o.b. cars, Mayfair siding of C., M. & St. P. Ry., a revolving steam shovel.

Painting, Etc., Hospital—Ft. Sill, Okla.—Until June 21 by Constructing Quartermaster, for minor repairs to hospital buildings, including interior and exterior painting, repairs to screens and doors, etc., advertised in Engineering Record.

Crane—Hamilton, Ont.—Until June 16 by S. H. Kent, City Clk., care of Chas. S. Walters, Mayor (Chmn.) Bd. Control, for a 10-ton traveling crane with all appurtenances for hand operation of same.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Cement—Washington, D. C.**—Contract for furnishing cement for use in the District of Columbia during the next fiscal year reported awarded to the National Mortar Co., Washington, at $1 per bbl.

Furnishing Willows—New Orleans, La.—Lowest bid opened May 10 by Maj. Edw. H. Schulz, Corps Engrs., U. S. A., for furnishing about 20,000 cords willows at South and Southwest Passes, Mississippi River, submitted by R. M. Murphy Co., Inc., New Orleans, at $1.47 per cord.

Elevators—Seattle, Wash.—Bids were opened June 1, by County Comrs., to furnish and install in new County Courthouse electric passenger elevators of the drum and traction type. Separate bids were called for on 4, 6 and 8 elevators. Lowest bidder, for duplicate worm gear, Otis Elevator Co., 4th Ave. and Seneca St., $21,948, $23,470 and $38,079, respectively; or for single crew type, $14,693, $21,963, $29,028. A. Warren Gould, Archt., American Bank Bldg.

★**Grading Capitol Grounds—Salt Lake City, Utah.**—Contract for grading at capitol grounds reported awarded to Utah Constr. Co., of Ogden, at 16½ cts. per cu. yd. for earth removal; total cost $49,500.

★**Pipe—Juneau, Alaska.**—Contract reported awarded by Gastineau Mining Co., of Juneau, to Willamette Iron & Steel Wks., of Portland, Ore., for about 2 miles of pipe for mining purposes; approximate cost $50,000.

Proposals

For Proposals Advertised, see Pages 46, 47 and 48.

WATERWORKS.

Bids Close.		See Eng. Record.
Jun. 14.	Intake Pipe, etc., Kenosha, Wis. Adv. May 22 to June 5.	May 22
Jun. 14.	Softening Plant, Napoleon, O. Adv. May 29.	May 29
Jun. 15.	System, Campbell, Minn.	Jun. 5
Jun. 15.	Pump, Washington, D. C.	Jun. 12
Jun. 15.	Reservoir, Salt Lake City, Utah	Jun. 12
Jun. 17.	Gate Valves, Tacoma, Wash.	Jun. 12
Jun. 18.	Laying Pipe, Cincinnati, O.	Jun. 12
Jun. 19.	Gate Valves, Chicago, Ill.	Jun. 12
Jun. 21.	Pump, Salem, Mass. Adv. May 29.	May 29
Jun. 22.	Improv., Butler, Mo. Adv. Jun. 5.	Jun. 5
Jun. 22.	Contract 159, Coagulating Plant, New York, N. Y. Adv. Jun. 5.	Jun. 5
Jun. 22.	Boiler, Lincoln, Neb.	Jun. 12
Jun. 22.	Pipe, St. Louis, Mo.	Jun. 12
Jun. 24.	Water Work, Oldfield, N. Y. Adv. June 12.	Jun. 12
Jun. 25.	Tower, Stratford, Ont. Adv. Jun. 5, 12.	Jun. 5
Jun. 25.	Water Wks. Improv., Harrison, Ark.	May 29
Jun. 25.	Dam, Filter Plant, Etc., Le Roy, N. Y. Adv. June 12.	Jun. 12
Jun. 29.	Water Works, Rittman, O. (2 Prop.) Adv. June 12.	Jun. 12
Jul. 1.	Dam, Columbus, O. Adv. Jun. 5.	Jun. 5

SEWERAGE AND SEWAGE DISPOSAL.

Jun. 14.	Greenwich, Conn. Adv. Jun. 5.	Jun. 5
Jun. 15.	Burlington, Ont.	Jun. 5
Jun. 15.	Sisseton, S. D.	May 29
Jun. 15.	West Carrollton, O.	Jun. 12
Jun. 15.	Boston, Mass.	Jun. 12
Jun. 16.	Engineer for Sewer System, Cleveland, Tenn. Adv. May 29.	May 29
Jun. 16.	Columbus, O.	May 29
Jun. 17.	Frankfort, Ind.	Jun. 12
Jun. 17.	Chicago, Ill.	Jun. 12
Jun. 18.	Okolona, Miss. Adv. May 29, June 5.	May 29
Jun. 18.	Chicago, Ill. Adv. Jun. 5.	Jun. 5
Jun. 18.	St. Louis, Mo.	Jun. 5
Jun. 21.	Greenwich, Conn. Adv. Jun. 12.	Jun. 12
Jun. 22.	Baltimore, Md.	May 29
Jun. 22.	Scarsdale, N. Y. Adv. June 12.	Jun. 12
Jun. 22.	Canton, O.	Jun. 12
Jun. 24.	Chicago, Ill. Adv. Jun. 5.	Jun. 5

BRIDGES.

Jun. 15.	Laredo, Tex.	May 29
Jun. 15.	Maryland Adv. May 29, June 5.	May 29
Jun. 15.	Toronto, Ont.	Jun. 12
Jun. 15.	Ribera, N. M.	Jun. 12
Jun. 15.	Scotia, Cal.	Jun. 12
Jun. 15.	Sidney, O.	Jun. 12
Jun. 15.	Bethel, O.	Jun. 12
Jun. 16.	Rome, Ga.	May 22
Jun. 16.	Illinois	Jun. 12
Jun. 16.	Superior, Wis.	Jun. 12
Jun. 18.	Brownhill, Ont.	Jun. 12
Jun. 19.	Hamilton, O.	May 29
Jun. 19.	Topock, Ariz. Adv. Jun. 5, 12.	Jun. 5
Jun. 19.	Cumberland, Md.	Jun. 12
Jun. 21.	Indianapolis, Ind.	Jun. 12
Jun. 21.	Phoenixville, Pa.	Jun. 12
Jun. 21.	Grove City, Pa.	Jun. 12
Jun. 23.	San Francisco, Cal.	Jun. 12
Jun. 25.	Seattle, Wash.	May 29
Jun. 25.	Williamsport, Pa.	Jun. 12
Jun. 28.	Lebanon, O.	Jun. 5
Jun. 29.	Scarsdale, N. Y. Adv. June 12.	Jun. 12
Jun. 29.	St. Louis, Mo.	Jun. 12

PAVING AND ROADS.

Jun. 14.	Sault Ste. Marie, Mich. Adv. May 29, June 5.	May 29
Jun. 14.	Media, Pa. Adv. Jun. 5, 12.	Jun. 5
Jun. 15.	Philadelphia, Pa. Adv. May 29, June 5.	May 29
Jun. 15.	St. Cloud, Minn	May 29
Jun. 15.	Maryland	Jun. 5
Jun. 15.	Marshalltown, Ia. Adv. Jun. 5.	Jun. 5
Jun. 15.	Columbus, O.	Jun. 5
Jun. 15.	Sandpoint, Idaho	Jun. 5
Jun. 15.	Sandpoint, Idaho	Jun. 12
Jun. 15.	Glasco, Kan.	Jun. 12
Jun. 15.	New Brunswick, N. J.	Jun. 12
Jun. 15.	Rockville, Md.	Jun. 5
Jun. 15.	Road Roller, Washington, D. C.	Jun. 12
Jun. 15.	Lancaster, O.	Jun. 12
Jun. 15.	Tillamook, Ore.	Jun. 12
Jun. 15.	Westminster, Md.	Jun. 12
Jun. 15.	Columbus, O.	Jun. 12
Jun. 15.	Wyoming, Pa.	Jun. 12
Jun. 16.	Ft. Leavenworth, Kan.	May 29
Jun. 16.	Albany, N. Y. Adv. May 29 to June 12.	May 29
Jun. 16.	Lancaster, O.	Jun. 12
Jun. 16.	Easton, Md. Adv. Jun. 5.	Jun. 5
Jun. 16.	Chicago, Ill.	Jun. 12
Jun. 16.	Long Island City, N. Y.	Jun. 12
Jun. 16.	Oakville, Tex.	Jun. 12
Jun. 16.	Sandpoint, Idaho	Jun. 12
Jun. 16.	Lincoln, Neb.	Jun. 12
Jun. 16.	Lake Forest, Ill.	Jun. 12
Jun. 17.	Newark, N. J.	Jun. 5
Jun. 17.	Moundsville, W. Va.	Jun. 12
Jun. 18.	Steubenville, O.	May 29
Jun. 18.	Glendale, O.	May 29
Jun. 18.	Cincinnati, O.	May 29
Jun. 18.	Bremen, Ind.	May 29
Jun. 18.	Mentor, O.	Jun. 12
Jun. 18.	Clearwater, Fla.	Jun. 12
Jun. 18.	Sault Ste. Marie, Mich.	Jun. 12
Jun. 18.	Greenford, O.	Jun. 12
Jun. 18.	Indianapolis, Ind.	Jun. 12
Jun. 19.	Painesville, O.	May 29
Jun. 19.	Goldendale, Wash.	Jun. 12
Jun. 21.	Baton Rouge, La.	May 22
Jun. 21.	Brainerd, Minn.	May 22
Jun. 21.	Olympia, Wash.	Jun. 5
Jun. 21.	Seattle, Wash.	Jun. 5
Jun. 21.	Clarksville, Tex. Adv. Jun. 5.	Jun. 5
Jun. 21.	Wellington, Kan.	Jun. 12
Jun. 21.	Bethany, Mo.	Jun. 12
Jun. 21.	Selma, Ala.	Jun. 12
Jun. 21.	Berlin Heights, O.	Jun. 12
Jun. 21.	Albany, N. Y.	Jun. 12
Jun. 22.	Maryland	Jun. 5
Jun. 22.	Washington, D. C. (2 Prop.) Adv. Jun. 12.	Jun. 12
Jun. 22.	Port Townsend, Wash.	Jun. 12
Jun. 22.	Philadelphia, Pa.	Jun. 12
Jun. 23.	Canton, O.	Jun. 12
Jun. 24.	Elmira, N. Y. Adv. June 12.	Jun. 12
Jun. 25.	Mt. Gilead, O.	Jun. 12
Jun. 28.	Green Bay, Wis.	Jun. 12
Jun. 26.	Columbus, O.	May 22
Jun. 29.	Grand View Heights, O.	Jun. 5
Jun. 29.	Toledo, O.	Jun. 5
Jun. 29.	Merrill, Wis.	Jun. 12
Jun. 29.	Grand View Heights, O.	Jun. 12
Jun. 29.	Scarsdale, N. Y. Adv. June 12.	Jun. 12
Jun. 30.	De Land, Fla. (Two prop.) Adv. June 5, 12.	Jun. 5
July 6.	Mansfield, La. Adv. June 12.	Jun. 12

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Jun. 14.	Dam, Lock Haven, Pa. Adv. May 22, 29.	May 22
Jun. 15.	Excav. for Earth and Rock, Detroit, Mich. Adv. May 8, 15 and June 5, 12.	May 8
Jun. 15.	Dam, Montreal, Que.	May 15
Jun. 15.	Power House at Dam 29, Ashland, Ky. Adv. May 29 to June 12.	May 29
Jun. 15.	Lock Gates, Valves, Etc., Vicksburg, Miss. Adv. May 29 to June 5.	May 29
Jun. 15.	Levee, New Orleans, La.	Jun. 12
Jun. 16.	Canal Excav., Payson City, Utah.	May 22
Jun. 16.	Dredging, Newport, R. I. Adv. May 15 to June 5.	May 15
Jun. 16.	Irrigation, Imperial, Cal.	Jun. 12
Jun. 17.	Earthwork for Levee, St. Louis, Mo. Adv. May 22 to June 12.	May 22
Jun. 17.	Boat Landing, Etc., Cleveland, O.	Jun. 12
Jun. 18.	Extension to Pier, Cap Chat, Que.	May 29
Jun. 18.	Retaining Wall, Cincinnati, O.	May 29
Jun. 18.	Pier, Brooklyn, N. Y.	Jun. 12
Jun. 19.	Superstructure of Pier, Erie, Pa. Adv. May 22 to June 12.	May 22
Jun. 19.	Flumes, Harlingen, Tex.	Jun. 12
Jun. 21.	Dredging, Boston, Mass. Adv. May 22 to June 12.	May 22
Jun. 21.	Dredging, Philadelphia, Pa. Adv. May 22 to June 12.	May 22
Jun. 21.	Repair to Bank Protection, Augusta, Ga. Adv. May 29 to June 12.	May 29
Jun. 22.	Drainage, Holly Hill, S. C.	Jun. 12
Jun. 22.	Ditches, Port Lavaca, Tex.	Jun. 12
Jun. 23.	Breakwater, Oswego, N. Y. Adv. June 5, 12.	Jun. 5
Jun. 25.	Wharf, Southport, N. C.	May 29
Jun. 25.	Rip Rap and Repairing Sea-Wall, New York, N. Y. Adv. May 29 to June 12.	May 29
Jun. 25.	Ditches, Three Lake, Wis.	Jun. 12
Jun. 26.	Levee Wk., Caldwell, Tex.	May 29
Jun. 26.	Levee Enlargement, Vicksburg, Miss. Adv. June 5, 12.	Jun. 5
Jun. 26.	Levee Wk., Memphis, Tenn. Adv. Jun. 12.	Jun. 12
Jun. 28.	Dredging, New York, N. Y. Adv. June 5, 12.	Jun. 5
Jun. 28.	Ditch Wk., Buffalo, Minn.	Jun. 12
Jun. 28.	Jetty Repair, Wilmington, Del. Adv. Jun. 12.	Jun. 12
Jun. 29.	Repairing Wall and Breakwater, Block Island, R. I. Adv. June 5, 12.	Jun. 5
Jun. 30.	Steel for Lock Construction, Sault Ste. Marie, Mich. Adv. May 29 to June 12.	May 29
Jun. 30.	Ferry and Dock Improvement, West Point, N. Y. Adv. June 5, 12.	Jun. 5
Jun. 30.	Gates for Irrigation Dam, El Paso, Tex. Adv. June 12.	Jun. 12
Jul. 1.	Irrigation, Great Falls, Mont.	Jun. 5
July 1.	Ditches, Bartow, Fla.	Jun. 12

PUBLIC BUILDINGS AND SCHOOLS.

Jun. 14.	Tampa, Fla. Adv. May 8, 15.	May 8
Jun. 14.	Plans, Wheeling W. Va. Adv. June 5, 12.	May 29
Jun. 14.	Grand Rapids, Mich. Adv. May 29.	May 29
Jun. 15.	Primghar, Ia.	May 15
Jun. 15.	Ft. Sill, Okla. Adv. May 22 to June 12.	May 22
Jun. 15.	Columbus, O.	May 29
Jun. 15.	Cleveland, O.	Jun. 5
Jun. 15.	Madera, Cal.	Jun. 5
Jun. 15.	Oswego, N. Y. Adv. Jun. 5.	Jun. 5
Jun. 15.	Albany, N. Y.	Jun. 5
Jun. 15.	Lawson, Mo.	Jun. 12
Jun. 15.	St. Cloud, Minn.	Jun. 12
Jun. 15.	Tampa, Fla.	Jun. 12
Jun. 15.	Dallas, Tex.	Jun. 12
Jun. 16.	Chicago, Ill.	Jun. 12
Jun. 16.	Connersville, Ind.	May 22
Jun. 16.	Woodworth, N. D.	Jun. 5
Jun. 16.	Brown City, Tex.	Jun. 12
Jun. 16.	Blairsville, Pa.	Jun. 12
Jun. 16.	Greencastle, Pa.	Jun. 12
Jun. 16.	Brooklyn, N. Y.	Jun. 12
Jun. 17.	Clay Center, Kan.	Jun. 12
Jun. 17.	Cincinnati, O.	Jun. 12
Jun. 17.	Buffalo, N. Y.	Jun. 12
Jun. 17.	Portland, Ore.	Jun. 12
Jun. 18.	Springfield, O.	May 29
Jun. 18.	Brownsburg, Ind.	Jun. 5
Jun. 18.	Hyde Park, Cal.	Jun. 5
Jun. 19.	Radnor, O.	May 29
Jun. 19.	Odessa, Minn.	Jun. 12
Jun. 21.	Cuero, Tex.	May 15
Jun. 21.	Ft. Terry, N. Y. Adv. May 29 to June 12.	May 29
Jun. 21.	Barberton, O.	Jun. 12
Jun. 21.	Sandusky, Mich.	Jun. 12
Jun. 21.	Herrin, Ill.	Jun. 12
Jun. 21.	Rochester, N. Y.	Jun. 12
Jun. 22.	Hastings, Mich.	Jun. 12
Jun. 23.	Allentown, Pa.	May 22
Jun. 22.	Fairmont, Minn.	Jun. 12
Jun. 22.	Lawrenceburg, Ky.	Jun. 12
Jun. 23.	Beverly, O.	Jun. 5
Jun. 23.	Ramona, Okla.	Jun. 12
Jun. 24.	Mt. Vernon, N. Y.	May 29
Jun. 25.	Cleveland, O.	Jun. 5
Jun. 25.	Toledo, O.	Jun. 5
Jun. 26.	Radnor, Miss.	Jun. 5
Jun. 26.	Brooklyn, N. Y.	Jun. 5
Jun. 26.	Walton, Ind.	Jun. 12
Jun. 28.	Canton, O.	May 29
Jun. 29.	Charleston, W. Va.	Jun. 5
Jun. 29.	Fedora, S. D.	Jun. 12
Jun. 30.	Chapel Hill, N. C.	Jun. 12
Jun. 30.	Muncy, Pa.	Jun. 12
July 1.	Boston, Mass.	May 22
July 1.	Renova, Pa. Adv. June 12.	Jun. 12
July 1.	Plans, Springfield, Mass.	Jun. 12
July 2.	Charlotte, N. C.	May 29
July 6.	Savannah, Ga.	Jun. 12
Jul. 7.	San Francisco, Cal.	Jun. 5
July 8.	Des Moines, Ia.	Jun. 5
July 9.	Beardstown, Ill.	Jun. 5
July 13.	Washington, D. C.	May 22
July 20.	Indianapolis, Ind.	Jun. 12
Aug. 1.	Seattle, Wash.	Jun. 5
———	Greenville, S. C. Adv. May 1.	May 1

PRIVATE BUILDINGS.

Jun. 15.	Little Rock, Ark.	Jun. 12
Jun. 16.	Northwood, Ia.	Jun. 12
Jun. 17.	Spencer, Ia.	May 29
Jun. 20.	Columbus, O.	Jun. 12
Jun. 21.	Lewiston, Mont.	Jun. 12
Jun. 22.	Biscay, Minn.	Jun. 12
Jun. 24.	Albert Lea, Minn.	Jun. 12
July 15.	Vancouver, B. C.	Jun. 12

MISCELLANEOUS.

Jun. 15.	El. Ry. Sect. No. 1, Brooklyn, N. Y. Adv. May 29, June 5.	May 29
Jun. 15.	Cranes, Norfolk, Va.	Jun. 5
Jun. 15.	Cement, Washington, D. C.	Jun. 12
Jun. 16.	Sprinkler System, Seattle, Wash.	Jun. 5
Jun. 16.	Lubricating Oils, Washington, D. C. Adv. Jun. 5.	Jun. 5
Jun. 16.	Lumber, New York, N. Y.	Jun. 12
Jun. 16.	Cranes, Hamilton, Ont.	Jun. 12
Jun. 16.	Conduit, Boston, Mass.	Jun. 12
Jun. 17.	Ditch, Slayton, Minn.	Jun. 5
Jun. 17.	Swimming Pool, Philadelphia, Pa.	Jun. 12
Jun. 18.	Steam Shovel, Chicago, Ill.	Jun. 12
Jun. 21.	Painting, Etc., Hospital, Ft. Sill, Okla. Adv. Jun. 12.	Jun. 12
Jun. 21.	Inspection of Structural Steel, Washington, D. C.	Jun. 12
Jun. 22.	Iron, Steel, Etc., Washington, D. C.	Jun. 5
Jun. 24.	Garbage Disposal, Etc., Detroit, Mich.	Jun. 5
Jun. 25.	Rock, New Orleans, La.	Jun. 12
Jun. 26.	Sulphate of Alumina, Washington, D. C. Adv. June 5, 12.	Jun. 5
Jun. 29.	Stone, Memphis, Tenn.	Jun. 12
Jun. 30.	Rip Rap Stone, Memphis, Tenn.	Jun. 12
July 1.	Crane, Halifax, N. S.	May 22
July 12.	Tunnel, Pittsburgh, Pa. Adv. June 5, 12.	Jun. 5

Gasoline Shovel Operated by Single Engine through Band Frictions

A shovel operated by a single-cylinder gasoline engine has been put on the market by the Fairbanks Steam Shovel Company, of Marion, Ohio. The shovel has a ⅝-yd. dipper and is built in two types—revolving full circle and standard shovel with roller wheels, both equipped with power traction. Either machine requires but one operator. The crowding, swinging and hoisting engines are run by a single gasoline engine, and controlled by band frictions. The traction device is driven through a reversing clutch. The full-circle shovel has a power steering device, while the standard shovel is steered with a hand wheel. The rear wheels of both models are fitted with a compensating device which allows the shovel to be turned in a very short space. A capacity of 25 to 54 cu. yd per hour is claimed for this shovel under varying conditions.

Self-Dumping Dragline Bucket Digs Marl and Broken Rock

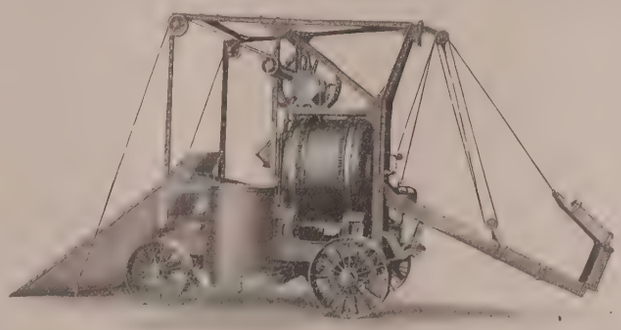
A self-dumping dragline bucket, which is said to be rapid and positive in action, and to dig loose rock or very compact clay with ease, is being put on the market by the Brown Hoisting Machinery Company, of Cleveland. This bucket was originally designed and patented by Mr. Shnable, of Shnable & Quinn, and was used by him on a section of the Calumet-Sag canal near Chicago with success in material which other buckets had failed to dig. This material was very compact glacial deposit underlaid by cemented marl containing considerable limestone "float". The bottom of the canal only was blasted. It lay in solid limestone.

The pulling and lifting bails are connected by links with the door of the bucket, which is at the rear. Tension on the digging rope holds this door closed until the bucket reaches the dump, when the digging line is slacked and the bucket suspended by the lifting bail. The bucket's body then turns on the two pins which connect it with the lifting bail, dropping away from the door and allowing the load to slide out. The pulling and lifting bails remain in the same relative position to the door, and the pins to which the pulling bail is attached slide in bronze-bushed slots in the sides of the bucket as it dumps. The pull in loading is above the center of the bucket, causing it to dig in. The bucket, it is said, can be made to dig on any desired slope, either up hill or down, by varying the tension on the hoisting line in digging. It is said that the bucket will clean itself at the first discharge of any material it will dig, from large rock to sticky clay. The bucket is provided with teeth tipped with removable manganese steel points. Special stone teeth are furnished when blasted rock is to be dug.

BUCKET DUMPS BEYOND REACH OF BOOM

New Concrete Paving Mixer Has Power-Driven Distributing Spout

A feature of the new Koehring mixer for concrete paving work is a power-driven distributing spout 20 ft. long, controlled from the mixer platform. This spout swings through an angle of 180 deg., and is lengthened or shortened under the control of the operator on the mixer platform. When the spout is shortened, and the unused sections elevated out of the way, the point of discharge of the sections in use is automatically lowered. This maintains the point of delivery at a low uniform distance from the ground, regardless of how few sections are in use. The spout is provided with an automatic lock which prevents it from swinging by gravity when the mixer is not standing level. It is said that the point of discharge of this chute can be controlled very quickly and readily by the man operating the mixer.



DISTRIBUTING SPOUT CONTROLLED BY MIXER OPERATOR

Another feature of these machines is an automatic brake on the loading skip, which, after the clutch knockout has stopped the skip in charging position, holds it there until released. This enables the operator to leave the loading skip before the batch is completely discharged, and turn his attention to turning on the water and handling the discharge of the mixer before lowering the loading skip. This feature is also incorporated in the other new models being made by the Koehring Machine Company, of Milwaukee, Wis.

Steam-Driven Hoist Has Two Speeds

By simply throwing a lever, shift can be made from low to high speed without stopping the rotation of the drum or engine of the latest steam hoist to be placed on the market. Other special features of the machine are the band friction which eliminates end thrust, use of cut steel gears entirely, composition lined brake bands, special engine design for heavy service, and a valve design which gives "straight line action" on the valve rod. The connecting rods are made solid on both the crank end and the cross-head end.

The hoist is equipped with a double-cylinder 8 x 10-in. engine which, when operating at 125-lb. steam pressure, gives a cable speed of 150 ft. on low and 450 ft. per minute on high with a tension of 15,000 lb. and 5,000 lb. respectively.

One of the particular purposes for which this hoisting engine was built was that of operation in connection with drag scrapers and cableway excavators. The low speed is used for loading and the high speed for hauling in to dump.

It is not ordinarily fitted with an upright boiler although provision is made should the user require it. It is the belief of the manufacturer, the Thomas Elevator Company, Chicago, that this hoist should be operated with a locomotive type of boiler because the continuous service required of a machine working on cableway excavators, requires greater steam consumption than the intermittent duty of the ordinary hoisting engine.

Business Notes

The Sullivan Machinery Company, manufacturer of mining and quarrying machinery, with general offices located at 122 S. Michigan Ave., Chicago, moved its Boston office from 35 Federal St., to 185 Devonshire St., June 15.

The Ingersoll-Rand Company, manufacturer of the Ingersoll-Rand steam and air drills, air compressors and similar equipment of 11 Broadway, New York City, has opened a branch office at 139 Townsend St., San Francisco. H. L. Terwilliger, district manager for the territory handled by this office and the Los Angeles office, will have his headquarters in San Francisco.

R. F. Atkins, formerly assistant credit manager at Chicago for the Universal Portland Cement Company, of 208 S. La Salle St., Chicago, has been appointed eastern credit manager at Pittsburgh, succeeding the late S. L. Fuqua.

The Builders Iron Foundry, manufacturer of Venturi meters, of Providence, R. I., has put on the market a tool cabinet containing the wrenches, keys, screw drivers, ink, oil, charts and equipment furnished with the Venturi Meter Register-Indicators-Recorders, which, it is said, are very often lost soon after their receipt. The box is of hardwood, supplied with a padlock and hooks or brackets so it may be suspended from a wall if necessary. The interior is so arranged that each tool is readily accessible, when wanted.

The General Fireproofing Company, of Youngstown, Ohio, has entered the waterproofing field and is manufacturing a complete line of waterproofing under the Newberg patents. The membranes are of bitumen base with either saturated felt or cloth, of a special make, said to possess elastic properties such as to give a maximum resistance to breaks. The coatings consist of various finishes for concrete and brick surfaces for both interior and exterior work and the vehicles are of a nature said to be adapted to penetrate thoroughly the surface to which the product is applied. A coating for structural steel is also included in the line as well as a new type of coating for galvanized iron. A feature of the new department is its engineering service and its facilities for treating each particular problem with the type of waterproofing best adapted to its individual needs.

Trade Publications

The following companies have recently issued trade literature:

Studebaker, South Bend, Ind. Catalog 1007, 5 x 8 in., 8 pages, illustrated. Data and general description of the Studebaker gravity road-oiler.

Koehring Machine Company, Milwaukee, Wis. Folder illustrating and describing the Koehring No. 6 medium size concrete mixing and paving machine.

New Construction Activities

Construction work involving the use of structural steel continues light. According to the Bridge Builders' & Structural Society, May contracts of this class amounted to 61 per cent of capacity, compared with 62.5 per cent of capacity announced for April. The fabricating capacity of the country is estimated at from 150,000 to 175,000 tons per month. The general situation in the steel business continues to improve. Buying for export and railway contracts during the last half of May increased the unfilled orders of the U. S. Steel Corporation on June 1 to 4,264,598 tons—a gain of 102,354 tons in spite of an increase in shipments. By the first of the month the corporation was operating at more than 81 per cent of capacity.

Exchange on several European countries has reached the lowest point ever recorded, and may drop still further because of the great increase of the balance of trade in favor of this country. This condition may lead to selling American securities held abroad to liquidate these debts, unless large credits are established here by foreign governments to cover the purchase of supplies. Any securities sold in this way, however, are likely to be more than paid for by the value on our exports, and therefore such selling is apt to leave substantially unaffected the prospects for funds for construction work.

It is reported that a $24,000,000 railway contract—the first large one in many months—has been awarded by the Lake Huron & Northern Ontario Railway to the National Engineering Company of Cleveland. The 300-mile line will be built to connect the Grand Trunk Pacific Railway with Sault Ste. Marie.

Buildings

Two large contracts have been awarded in Brooklyn, one for erecting a new building for a brewing company and the other for erecting a $550,000 concrete factory building. A school contracted for at Philadelphia will cost $126,500, and another school contract has been awarded at South Bethlehem, Pa., for $131,500. A $500,000 hotel building has been contracted for at Atlantic City, N. J. The lowest bid on the Detroit municipal court building opened June 9 was $587,400. New bids have been advertised for June 30 on the Syracuse vocational high school building. The lowest bid opened June 1 for the building itself was $324,300. Bids are desired on a $250,000 elevator at Buffalo. Bids will be opened June 30 on a high school to cost $400,000 at Washington.

Plans are being prepared for a $500,000 warehouse at Buffalo, and it is reported that a $500,000 hotel will be built at Trenton, N. J. It is also reported that the Pennsylvania Railroad will build a $250,000 grain elevator at Philadelphia. Plans are being prepared for a $300,000 school at Philadelphia. Evansville, Ind., has sold school bonds in the sum of $150,000. Plans have been selected for a $150,000 school building at St. Cloud, Minn., and plans are being prepared for a school of the same size at Dayton, Ohio. An appropriation of $500,000 has been made for a high school at Los Angeles.

Building work will be undertaken for three Eastern colleges, according to reports. At Philadelphia $4,000,000 has been bequeathed for the erection of a new college, plans for which will soon be called for. Additional gifts to the Massachusetts Institute of Technology at Boston for building purposes totaled $475,000, and Middlebury College in Vermont is to erect a $150,000 dormitory.

Bridges and Roads

More bridge work of fair size was reported last week than during any two weeks for the past month. The West Monroe Street bridge in Chicago was awarded, and bids were opened on a $125,000 viaduct in Cincinnati. Bids were opened on a $79,000 bridge contract at New Gretna, N. J., and a $75,000 bridge contract was awarded at Greensburg, Pa. A $32,000 bridge contract was awarded at Youngstown, Ohio, and a contract for a 1170-ft. concrete bridge was awarded at Columbus, Ohio. The three concrete bridges to be built near Rome, Ga., were awarded at a total of $210,000.

Stockton, Cal., has awarded two bridge contracts totaling $143,600. The lowest bid for reconstructing the Connaught bridge at Vancouver, B. C., was $72,330. It is reported that bids are desired for a $300,000 concrete bridge at Manayunk, Pa., for the Pennsylvania Railroad. Bids are also desired on the other two bridges proposed at Seattle, which will cost together $785,000. Plans have been approved for a $200,000 bridge over the Bronx River at Yonkers, N. Y. Seattle, Wash., has appropriated $90,000 for constructing approaches to the Salmon Bay bridge by day labor.

Bids were opened in Brooklyn June 9 for paving work which will cost $229,000. The lowest bids opened at Philadelphia recently for paving work totaled $176,500. Connecticut has awarded four small highway contracts. A $100,000 paving contract has been awarded at Washington, D. C., and another of the same size at Chattanooga, Tenn. Baltimore has awarded a $53,000 paving contract. A paving contract has been awarded by Bexley, Ohio, at $73,000. Two contracts awarded at Seattle total over $234,000. A highway contract for $165,500 has been awarded at Spokane. Two road contracts on which bids were opened by the State of Washington total $61,000.

Bids are desired on further State highway work at Albany, N. Y., and on 4 miles of road construction at Brockton, Ill. Lebanon, Pa.; Malvern, Ohio, and Omaha will each let contracts for from 25,000 to 30,000 sq. yd. of paving. Plans have been approved for paving work to cost $85,000 at Rock Island, Ill., Fairbury, Ill., will pave 28 city blocks. At San José, Cal., 210,000 sq. yd. of paving work is contemplated. A contract for $100,000 worth of road work will soon be let at Everett, Wash. Two large road bond issues have been voted, one for $600,000 at Huntington, W. Va., and one for $425,000 at Austin, Texas.

Waterworks and Sewers

The lowest bid for constructing a dike in connection with the Nepaug reservoir at Hartford was $29,180. Bids are desired for constructing a 2,000,000-gal. settling basin at Media, Pa., and for building a reservoir of the same size at Covington, Va. Waterworks improvements contemplated at Cambridge, Ohio, will cost $250,000. Surveying has been completed for waterworks at Le Roy, N. Y., for which $105,000 bonds have been sold. Two sewer contracts totaling $114,000 have been awarded at Baltimore on bids opened June 9. Two more contracts recently awarded by the same city total $75,000. A $41,000 sewer contract was awarded at Carruthersville, Mo.

There were nineteen bids received for constructing the sewer system and disposal plant at Cleburne, Tex., ranging from $144,000 to $241,000. Bids are desired on further trunk sewer construction at Washington, D. C. Bids are desired on a $157,000 sewer contract at Indianapolis. Winston-Salem, N. C., desires bids on 2½ miles of sewer construction. It is reported that the city council of York, Pa., has authorized borrowing $150,000 for sewer construction. A $93,000 sewer bond issue has been voted at Maywood, N. J., and a $500,000 issue at Austin, Texas. Plans are to be prepared for a $200,000 disposal plant at Lexington, Ky.

Miscellaneous

The lowest bid opened June 15 for a section of the Nostrand Avenue subway in Brooklyn, N. Y., was $2,075,000, submitted by the firm of Newman & Carey, 215 Montague Street, Brooklyn. The contract for the Twenty-ninth Street pier in Brooklyn has been awarded at $115,000. The lowest bid for grade-crossing elimination work at Buffalo was $152,000. A $95,000 levee contract has been awarded at Vicksburg, Miss. Two dike contracts awarded by the U. S. Engineer Office at Kansas City totaled $132,000. A $300,000 contract for the delivery of stone for jetty work has been awarded by the U. S. Engineer Office at Portland, Ore. Bids are desired until June 21 for constructing cotton warehouses of reinforced concrete at the New Orleans terminal. A $300,000 bond will be required with the contract. It is reported from Gila Band, Ark., that a local railroad company has petitioned for permission to issue $1,350,000 additional securities to cover the construction of a new line. A $2,500,000 power development is proposed near Kansas City. Los Angeles has been authorized to sell the $6,500,000 bond issue voted a year ago for developing power on the Los Angeles Aqueduct. It is reported from Houston, Texas, that bond issues totaling $1,750,000 for various State improvements have been approved by the Attorney General.

WATERWORKS

PROPOSED WORK.

Lenox, Mass.—Plans prepared by Lenox Water Co. for a reservoir to cost $12,000.

Le Roy, N. Y.—Surveys completed and contract will soon be let by Village Trus. for water works, for which citizens voted $105,000 bonds.

Harrison, N. J.—All bids opened June 1 by Hudson County Park Comrs., 1 Exchange Pl., Jersey City, for completion of filter plant, West Hudson Park, also for a pumping station at same park were rejected.

Wheeling, W. Va.—City Engr. Chas. B. Cooke and Engr. Clement B. Smith completed estimates on proposed well water filtration system and recommend use of centrifugal pumps, a 5,000,000-gal. storage reservoir, on West Virginia Shore, to which the water will flow by gravity, a c.-i. gravity line from storage reservoir to present pumping station.

Ocala, Fla.—Bonds for $55,000 water works and $100,000 sewerage will be sold June 26 by E. J. Crook, Secy. Bd. Bond Trus.

Gretna, La.—Plans reported completed by Anderson Orfutt, for water works; estimates cost of city owned plant at $69,741, or $39,595 if Algiers plant is purchased.

Henderson, Tenn.—Citizens voted $57,000 bonds for water works, sewers and electric light plant.

Pensacola, Fla.—See "Public Buildings."

Cincinnati, O.—Bonds for $100,000 for extending, enlarging and improving water works will be sold June 24 by Wm. Leimann, City Aud.

Cambridge, O.—Water works improvements will cost about $250,000 and include 50,000 ft. c. i. pipe 14 to 4 in., 300,000,000 gal. reservoir, 3,000,000 gal. filter plant, 2 pumping engines, one 150 hp. boiler. Engineers, W. J. Sherman Co., Toledo. F. D. E. Lee, Dir. Pub. Service.

Cleveland Heights, O.—Bids desired June 21 by H. H. Canfield, Village Clk., 301 Beckman Bldg., Cleveland, for following bonds: $4,500, water improvement; $7,000, sewer, and $14,000, paving.

Marietta, O.—Plans for proposed reservoir have been submitted for approval to State Bd. of Health at Columbus.

Youngstown, O.—Budget Com. of City Council considering appropriation of $100,000 for water works extensions and improvements.

Contracting News

Of Special Interest to Engineers, Contractors, Builders and Manufacturers of Engineering and Building Supplies

Ahmeek, Mich.—Citizens voted $17,500 bonds for a pumping station and water works.

Battle Creek, Mich.—State Senate reported to have passed bill appropriating $25,000 for extension of water mains at Michigan Soldiers Home.

Lakefield, Minn.—Citizens voted bonds to rebuild electric plant, pole line and water works. E. C. Anderson, City Clk.

Robbinsdale, Minn. — Plans being prepared by W. C. Buck, 482 Tremont Ave. S., Minneapolis, for municipal water works to consist of power plant complete, 100,000 gal. steel tank and steel tower, 5,000 to 10,000 ft. water mains and other equipment.

Aberdeen, Wash. — City Council instructed Mayor to name committee of business men to co-operate with Council and investigate feasibility and probable cost of developing Wynooche water supply and establish municipal water works.

Everett, Wash.—Election will probably be held in July to vote $650,000 bonds for water works improvements. Engineers, Burns & McDonnell, of Kansas City, Mo.

Poulsbo, Wash.—Council reported considering construction of water works.

Seattle, Wash.—Utilities Com. of City Council recommended appropriation of $16,000 for improvement of timber dam at Cedar River intake.

Spokane, Wash.—County Comrs. considering installation of water works to supply county infirmary and other buildings, to include a 50,000-gal. tank and several silos. Alfred T. Anderson, Co. Aud.

Martinez, Cal.—City Trus. reported to have decided to call bond issue of $40,000 for fire protection system.

BIDS DESIRED.

New York, N. Y.—Until July 7 by Bd. Water Supply, Municipal Bldg., New York, for Contract 149—racks, shutters, screens, lifters, etc., in gate chambers at Ashokan, Kensico and Hill View Reservoirs, town of Olive, Ulster County, and Mt. Pleasant and Yonkers, advertised in Engineering Record.

Gloucester City, N. J.—Reported desired until June 25, by J. F. Lenny, City Clk., for furnishing and installing boilers, stacks, tank serving pumps, air compressors, together with deep well air lifts, etc. A. Blatchley, Engr., 1052 Drexel Bldg., Philadelphia, Pa.

Media, Pa.—Until June 28 by M. C. Michener, Chmn. Water Com., for water works improvements, advertised in Engineering Record. Engineer, J. W. Ledoux, Ch. Engr., American Pipe & Constr. Co., 112 N. Broad St., Philadelphia.

Baltimore, Md.—Until June 30, by Bd. of Awards, in care of City Register, for a 20,000,000 gal. centrifugal pump and electric power equipment for Eastern pumping station, Water Dept., advertised in Engineering Record. Ezra B. Whitman, Consulting Engr.

Covington, Va.—Until July 12 by E. B. Butler, Mayor, and Town Council for c.-i. pipe, specials, valves and other water works material and for constructing a 2,000,000-gal. concrete reservoir, advertised in Engineering Record. Harry Stevens, Consulting Engr., Union Trust Bldg., Washington, D. C.

St. Marys, W. Va.—Reported desired until June 30 by Chas. Carroll, City Recorder, for constructing concrete reservoir; capacity, 380,000 gal. E. J. Miller, City Engr.

Covington, Ky.—Until July 8 by J. Mason Howk, Comr. Pub. Property, for 996 tons 24-in. Class C and 2591 tons Class D pipes, and 20 tons special castings. Geo. Hornung, Engr., Wool-Sack Bldg., Newport.

Lowellville, O.—Until June 24 by C. W. Baker, Clk. Village Council, for drilling artesian or driven wells. Wm. Wilson, Engr., Elks Bldg., Youngstown.

Detroit, Mich.—Until June 21 by Geo. J. Finn, Secy. Fire Comrs., for furnishing f.o.b. Detroit, pipe line material, including 150 8 x 6 c. i. tees, 150 8-in. c. i. sleeves, 150 6 x 6 c. i. tees, 150 6-in. c. i. sleeves, 150 6-in. 22½-degree c. i. curves, 150 6in. 45-degree c. i. curves, 150 6-in. 90-degree c. i. curves, 500 Morgan gate boxes, 400 6-in. Detroit standard gate valves, 300 6-in. Detroit Fire Dept. standard compression hydrants.

Chicago, Ill.—By L. E. McGann, Comr. Pub. Wks., as follows:

June 21, at water meter shops, 1330 Indiana Ave., disc water meters.

June 22, one 72-in. gate valve with operating mechanism and 72-in. connecting pipes, f.o.b. cars, 68th St. Pumping Station side track.

Until June 25 by Edw. J. Glackin, Secy. Bd. Local Improv., for constructing water service pipes in portions of various streets, including Bishop, W. 87th and E. 73d Sts.

Chicago, Ill.—Until June 30 by W. D. Moorhouse, Comr. Pub. Wks., to furnish and deliver pumping machinery auxiliaries, appurtenances and accessories for 68th St. Pumping Station.

Dundas, Ont.—Reported desired until June 23, by C. Karsh, for concrete dam 18 ft. x 80 ft., for Dundas Public Utilities Comn.

San Juan, P. R.—Until July 9 by Quartermaster, U. S. A., to furnish material and construct 70,000-gal. steel standpipe or tank and trestle at Ft. El Morro.

Ryde, New South Wales—Until July 12 by Metropolitan Bd. Water Supply and Sewerage, 341 Pitt St., Sydney, Australia, for 2 steam turbines with condensers, air pumps, etc., and spares, at pumping station at Ryde.

PRICES AND LETTINGS.

★Indicates award of contract.

★Albion, N. Y.—Contracts reported awarded as follows on bids opened May 26 for waterworks improvements: To Ludlow Mfg. Co.; Troy, for hydrants, valves and valve boxes, $1,899; New York Continental Jewell Filter Co., New York, filter plant and equipment, $12,220; R. D. Wood Co., Philadelphia, Pa., water pipe, $23.65 per ton. J. F. Witmer, Engr., Buffalo.

Lockport, N. Y.—Following bids opened June 7 for a 10 and 12-in. water pipe on Market and Mill Sts.: F. J. Le Valley, Lockport, $16,600; C. B. Whitmore Co., Lockport, $16,660; C. N. Stainthore & Co., Lockport, $16,990; H. W. Golden & Son, Inc., Troy, $18,325. Wm. G. Spalding, City Clk.

★Herrin, Ill.—Contract reported awarded to Pittsburgh Filtration Co., Pittsburgh, Pa., to construct filtration plant at city reservoir, at $18,107.

★Rock Valley, Ia.—Contract for steel tower and tank awarded to Des Moines Bridge & Iron Co., Des Moines, at $2,626. (Bids opened June 2). J. A. Gartland, City Clk.

★Spillville, Ia.—Contract awarded to Des Moines Bridge & Iron Works, Des Moines, for 30,000-gal. tank and tower at $7,469, and for 60,000-gal. concrete reservoir at $8,593 (bids opened June 5). A. A. Novak, Town Clk.

★Ipswich, S. D.—Contract for construction of concrete reservoir awarded to Tanner Bros., of St. Paul, Minn. (bids opened June 3. Engineers, Dakota Eng. Co., of Mitchell.

★Caruthersville, Mo.—Contract awarded for extensions and improvements to the water works (bids opened June 2) to Monie & Dunbar, Chemical Bldg., St. Louis. Frank L. Wilcox, Engr., Syndicate Trust Bldg., St. Louis.

★Umatilla, Ore. — Contract reported awarded to Pike & O'Neil, Portland, to construct distributing system for water supply system to be installed in city by Oregon-Washington Railroad & Navigation Co.; cost about $10,000.

★San Diego, Cal.—Contract awarded to Power Equipment Co., Rialto Bldg., San Francisco, to install water and sewer system at naval station, at $10,650.

SEWERAGE AND SEWAGE DISPOSAL

PROPOSED WORK.

Malden, Mass.—City authorized $90,000 bond issue for sewers, surface drainage and street paving. Nothing definite yet done.

Ilion, N. Y.—City Clerk writes citizens voted $30,000 bonds, June 11, for constructing sewer system.

Maywood, N. J.—Citizens June 8 voted $93,000 bonds to construct sewer system from plans of Clyde A. Potts, 50 Church St., New York. Will probably be sold in August.

York, Pa.—City Council reported to have authorized increase of $160,000 in city's bonded indebtedness for completion of sewer system, fire apparatus, additional storm water sewers and land purchases for park purposes.

Ocala, Fla.—See "Water Works."

Henderson, Tenn.—See "Water Works."

Cleveland Heights, O.—See "Water Works."

Cincinnati, O.—Bonds for $1,000,000 for constructing Millcreek trunk and other sewers and sewer improvements, also for $100,000 for improving by sewering Clinton Springs Ave. and other streets, will be sold June 24 by Wm. Liemann, City Aud.

Reed City, Mich.—Citizens reported to have voted to issue bonds for constructing sewer system.

Sheboygan, Wis.—Council considering construction of about 2 miles in northwestern section of city.

Stillwater, Minn.—Plans being prepared by L. W. Clarke, City Engr., for sewers in Churchill and S. 4th Sts., 2600 ft. 8, 12 and 24-in. vitr. pipe.

Austin, Tex.—Citizens voted $500,000 bonds June 9 for constructing sewers. M. C. Wellborn, City Engr.

Houston, Tex.—State Attorney General has approved bond issues as follows: Sanitary sewer, $500,000; drainage, $500,000; parks, $250,000; harbor, $500,000.

Alameda, Cal.—Council decided to construct sewer in north end of Arbor St. with outlet to Brooklyn basin; cost $10,000.

Marysville, Cal.—W. M. Meek, City Engr., estimates cost of extending drainage system at $20,000. Bond election will soon be held.

Visalia, Cal.—Election will soon be held to vote $65,000 bonds for sewer extension.

BIDS DESIRED.

Long Island City, N. Y.—Until June 23 by Maurice E. Connolly, Boro. Pres., for sewers in Polk St., to include 1991 lin. ft. 4-ft. 3-in. reinforced concrete sewer, 285 lin. ft. 4-ft., 255 lin. ft. 3-ft. 9-in., 256 lin. ft. 3-ft. 6-in, and 239 lin. ft. 3-ft., 3-in. concrete sewer, 27 manholes, 180 M. ft. timber, 2000 lb. reinforcing steel (extra), etc. Security, $20,000.

Camden, N. J.—Reported desired until June 21 by Street and Highway Com., for constructing sewers in various streets.

Washington, D. C.—Until June 21 by Comrs. D. C. (Oliver P. Newman, Chmn.) for 1700 lin. ft. trunk sewer 4 ft. 6 in., also 7800 lin. ft. pipe sewers, 10 to 21 in., advertised in Engineering Record.

Winston-Salem, N. C.—Bids desired until June 30 by Com. on Sewers, Bd. Aldermen (L. F. Owen, Chmn.), for constructing a sewage disposal plant, reinforced concrete and extending main sewer lines thereto, a distance of 2½ miles, 24 and 30 in. sewers in shallow trench. J. L. Ludlow, Engr., Winston-Salem.

Brewster, O.—Reported desired until July 2 by Village Clerk for constructing sewers. W. J. Sherman Co., Engrs., Nasby, Toledo.

Canton, O.—Reported desired until June 23 by Director Pub. Service for constructing sanitary sewers.

Cleveland, O.—Until June 24 by Comr. Purchase & Supplies, to construct sewers in portions of W. 3d St., Prospect Ave. and Colt Road.

Columbus, O.—Until June 29 by Geo. A. Borden, Dir. Pub. Service, for constructing South Side Storm Sewer, cost $250,000, and Maryland Ave. sewer, cost $100,000, advertised in Engineering Record. Henry Maetzel, Ch. Engr., City Hall.

Lowellville, O.—Until June 24 by C. W. Baker, Village Clk., for constructing sewers in Sewer Dist. No. 2. Wm. Wilson, Engr., Elks Bldg., Youngstown.

Indianapolis, Ind.—Until June 25 by Bd. of Pub. Works for constructing main sewer in Central Ave., to include 13,340 ft. brick, block or concrete circular sewer 6 ft. to 2 ft. 6 in., 13,180 lin. ft. vitr. pipe sewer 20 to 12 in., double strength, 25,080 lin. ft. house connections, 57 oval manholes, 20 circular manholes, 1 inlet, etc.; estimated cost $157,000. Chas. A. Brown, Engr. of Sewers.

Also same time and place for constructing 38th St. overflow, estimated to cost $90,000, to include 4345 ft. 8 ft. 6 in. vitr. brick or concrete drain.

Chicago, Ill.—Until June 25 by Bd. Local Improv. (Edw. J. Glackin, Secy.), for constructing sewers and drains in portions of various streets, including Blaine Pl., Ridgeland Ave. and Evanston Ave.

Ft. Dodge, Ia.—Reported desired until June 21 by W. L. Tang, City Clk., for constructing sewers.

Newton, Ia.—Until June 29 by E. G. Finch, City Clk., for constructing sewage disposal or purification plant, advertised in Engineering Record.

Glencoe, Minn.—Until June 29 by Peter Hatz, City Clk., for main trunk sewer and various laterals, and 50,000 gal. Imhoff tank with outfall to creek. J. F. Druar, Consulting Engr., Commercial Bldg., St. Paul.

St. Paul, Minn.—Until June 21 by August Hohenstein, Purchasing Agt., for sewers in portions of various streets.

Kirksville, Mo.—Until June 28 by Mayor and City Council for constructing storm sewers in Joint Storm Sewer Dist 3, about 3682 lin. ft. 10 to 36 in. storm sewer.

Port Angeles, Wash.—Reported desired until June 29 by J. L. Beam, City Clk., for constructing a sewer system in North Side; cost $50,000.

PRICES AND LETTINGS.

★Indicates award of contract.

★Woonsocket, R. I.—Contract for surface water drains in S. Main, Old, Cottage and other streets awarded to Brien & Bouvier, of Woonsocket, at $7,400.

★Baltimore, Md. — Contract reported awarded by Bd. Awards as follows: Sanitary sewer in South Baltimore to Ryan & Reilly, Baltimore, and trunk sewer in Northwest Baltimore, to A. T. Carozza, Baltimore. Total cost $75,000.

★Baltimore, Md.—Contract awarded June 9 by Bd. of Awards to A. T. Carozza Co., for lateral sewers south and east of Patterson Park, to cost $76,797, and for sanitary sewers at Ferry Point, South Baltimore, at $37,654.

★Hartford, Conn.—Following are unit prices of 4 lowest bids opened June 2 by Bd. Water Comrs. (Caleb M. Saville, Ch. Engr.) for constructing east dike Nepaug reservoir, Contract 9, in Town of Canton: (a) Leonardo Suzia, Meriden, $29,180 (awarded contract); (b) Louis Longhi & Bros., Torrington, $33,673; (c) Connecticut Good Roads & Constr. Co., New Britain, $33,781; (d) Chas. T. Eastburn Co., Yardley, Pa., $36,408.

	*(a)	(b)	(c)	(d)
25 acres clearing	$40.00	$35.00	$30.00	$40.00
10 acres grubbing	60.00	100.00	40.00	125.00
1,000 cu. yds. earth excav. in trench, 0 to 10 ft. deep	0.50	0.96	1.00	0.50
350 cu. yds. earth excav. in trench, 10 to 18 ft. deep	1.00	2.26	1.85	1.00
350 cu. yds. earth excav. in trench below 18 ft. deep	1.80	3.40	2.45	1.50
2,000 cu. yds. earth excav. not included in above	0.38	0.80	0.75	0.50
400 cu. yds. rock excav.	2.50	3.00	3.50	1.50
200 sq. yds. spec. prep. of rock surface	0.50	0.50	1.00	1.50
12,000 cu. yds. refill. and embank'g soil	0.35	0.38	0.37	0.70
4,700 cu. yds. refill. and embank'g coarse gravel	0.40	0.55	0.40	0.50
12,000 cu. yds. refill. and embank'g misc. materials	0.33	0.38	0.37	0.40
4,000 cu. yds. surface dress'g and grass'g	0.70	0.75	0.70	0.50
1,800 cu. yds. concrete masonry, Class A	3.80	3.75	4.50	4.50
75 cu. yds. concrete masonry, Class B	5.00	5.50	11.00	4.50
2,200 bbls. Portland cement	1.40	1.40	1.50	1.88
500 lin. ft. haul. and lay. c.-i. pipe and spec	0.85	0.75	0.75	0.35
225 lin. ft. remove 8-in. c.-i. pipe	0.50	0.25	0.30	0.12
4,500 lbs. metal for reinforcing	0.04	0.04	0.05	0.04
800 lbs. misc. cast iron, wrought iron and steel	0.06	0.06	0.08	0.06
100 lbs. bronze and copper	0.40	0.50	0.30	0.30
1,200 sq. yds. 6-in. gravel surface	0.25	0.25	0.40	0.25

Cleburne, Tex.—Nineteen bids were opened June 4 for constructing sanitary sewer system and disposal plant, from plans of Burns & McDonnell, Scarritt Bldg., Kansas City, Mo., ranging in price from $144,527 to $240,857.

★Following are unit prices of 4 lowest bids: (a) Hamilton Bros., Houston, $144,527 (awarded contract); (b) Brown Bros., Kansas City, Mo., $148,818; (c) Bash & Janes, Joplin, Mo., $151,187; (d) Wm. F. Riley, St. Louis, Mo., $152,468:

Vitrified Sewer Pipe:	*(a)	(b)	(c)	(d)
125,278 ft. 8-in.	$0.18	$0.225	$0.25	$0.24
18,575 ft. 10-in.	0.25	0.29	0.34	0.30
13,791 ft. 12-in.	0.40	0.37	0.42	0.40
6,280 ft. 15-in.	0.60	0.525	0.60	0.60
2,956 ft. 18-in.	0.85	0.77	0.95	0.80
8,781 ft. 21-in.	1.15	1.11	1.35	1.00
12 ft. 8-in. c.-i. pipe	0.60	0.90	0.80	1.00
60 ft. 10-in. c.-i. pipe	0.825	1.08	1.00	1.25
24 ft. 12-in. c.-i. pipe	1.05	1.44	1.30	1.50
120 ft. 18-in. c.-i. pipe	1.87	2.70	2.40	2.00
264 ft. 21-in. c.-i. pipe	2.25	3.10	2.80	4.00
115,615 6-ft trench	0.12	0.16	0.11	0.17
27,660 6-ft. to 8-ft. trench	0.25	0.19	0.13	0.20
27,060 8-ft. to 10-ft. trench	0.29	0.24	0.21	0.30
3,675 10-ft. to 12-ft. trench	0.40	0.60	0.60	0.50
1,690 12-ft. to 16-ft. trench	0.88	0.90	0.90	0.90
3,140 6-in. on 8-in Y-connections	0.72	0.35	0.35	0.25
335 6-in. on 10-in. Y-connections	0.97	0.50	0.55	0.30
255 6-in. on 12-in. Y-connections	1.26	0.60	0.75	0.40
57 6-in. on 15-in. Y-connections	1.81	1.00	1.00	0.50
35 6-in. on 18-in. Y-connections	2.80	1.40	1.30	0.70
286 manholes, ea.	49.00	27.00	25.00	28.00
50 flush tanks, ea.	75.00	64.00	55.00	60.00
52 lampholes, ea.	6.00	7.00	7.00	7.00
11,900 cu. yds. rock excavation	1.00	1.80	1.25	1.75
151.5 cu. yds. Portland cement	11.00	9.00	9.00	7.00
Lumber, per M ft.	30.00	40.00	15.00	30
Sewage disposal plant (lump sum)	28,194.00	24,000.00	34,400.00	24,0

Washington, D. C.—Following are totals of bids opened June 3 for constructing sewers: Warren F. Brenizer Co., 141 Q St., N. W., Washington, $10,633; Whiting-Turner Constr. Co., Sescon Bldg., Baltimore, Md., $13,066. Asa E. Phillips, Supt. Sewers.

Following bids opened June 10 for constructing Sect. 4 Anacostia main interceptor: Warren F. Brenizer Co., Washington, $26,765; Whiting-Turner Constr. Co., Baltimore, Md., $40,369, and Jas. H. Sullivan, Philadelphia, Pa., $60,797. Asa E. Phillips, Supt. and Engr. of Sewers, D. C.

★**Cleveland, O.**—Contracts awarded by Bd. of Control as follows: To construct drain at Division Ave. filtration plant, to John F. Casey Co., Cleveland, at $8,744; to Chas. H. Bennett, for sewer in Jennings Road, S. W., at $25,000.

★**Green Bay, Wis.**—Contract reported awarded to C. P. Flatley, of Green Bay, for constructing sewer on 9th St., at $11,071.

★**Butte, Mont.**—Contract reported awarded to E. Lindstrom, of Billings, to construct storm sewers at $25,000.

★**Caruthersville, Mo.**—Contract to construct sewer system (bids opened June 2) awarded to A. C. Brown, of Herrin, at $41,600. Engineer, Frank L. Willcox, Syndicate Trust Bldg., St. Louis.

★**Spokane, Wash.**—W. J. Hoy & Co. reported to have sublet contract for sewer changes at Sprague Ave. and Division St. to Dixon & Oliver, of Spokane. Cost about $25,000.

★**McMinnville, Ore.**—Contract reported awarded for constructing north sewer system to V. E. Dennis, of McMinnville, at $32,949.

San Diego, Cal.—See "Water Works."

BRIDGES

PROPOSED WORK.

Springfield, Mass.—Supt. Clark, of City St. and Eng. Dept. will soon let contract for constructing bridge over Boston & Maine Railroad at Plainfield, to cost about $40,000. May be possible to use steel work from old bridge to carry Cottage St. across Hampden R.R. in East Springfield, if city decides to build a bridge at latter point.

Bridgeport, Conn.—Contract about to be let by Bridge Comn. for constructing concrete bridge with steel bascule draw at Stratford Ave.

Westport, Conn.—Plans for constructing concrete lift bridge 33 ft. wide over Saugatuck River at State St. have been approved by Chas. J. Bennett, State Highway Comr., Hartford.

Depew, N. Y.—Concrete arch bridge to be constructed over Cayuga Creek on Broadway jointly by Lancaster and Depew; cost about $20,000.

Yonkers, N. Y.—Public Service Comn., First Dist., approved plans for aqueduct approach and concrete bridge over New Haven R. R. and Bronx River at 241st St. and Wakefield Ave., cost $200,000.

★**Greensburg, Pa.**—Contract for structural steel bridge over Big Sewickley Creek awarded to Rinehart Bros., of East Liverpool, O., at $74,975. John S. Sell, Co. Controller.

Williamsport, Pa.—State Water Supply Comn., Harrisburg, granted permission to Lycoming County to erect bridges in Muncy, Lycoming, Plunketts Creek, Hepburn, Mifflin, Armstrong, Jordan and Limestone Townships.

Clearwater, Fla.—The Tampa & Gulf Coast Ry. Co., O. N. Axtell, Ch. Engr., Tampa, to build bridge 2000 ft. long over Bayou from Mainland opposite Indian Beach near Clearwater.

Billings, Mont.—County Comrs. at Billings will spend $50,000 for constructing following bridges: One at Hardin, cost $28,000; one at Wyola, one over Little Horn River, and another over Tongue River.

Seattle, Wash.—City Council voted appropriation of $90,000 for constructing approaches to Salmon Bay Bridge by day labor.

Spokane, Wash.—Plans submitted to Comr. Pub. Wks. by Northern Pacific Ry. Co., for bridges to be erected as follows: Straight steel bridge at 2d Ave. and Maple St. and at 3d Ave. and 4th Ave., crossing, and concrete steel covered bridge on concrete posts with facia steel girders erected at Walnut St., 5th Ave. and Cannon St. and 6th Ave. crossings.

Fairbanks, Alaska.—Plans being prepared by G. E. Edgerton, of Valdez, Engr. Alaska Road Comn., for steel or cable suspension bridge on a concrete foundation, 300 ft. long and 18 ft. wide.

BIDS DESIRED.

Allentown, Pa.—Until June 28 by County Comptroller, Allentown, for following bridge work: Repairs to Swabian Bridge, over Swabian creek, Lower Macungie Township; stone arch bridge over Jordan creek, Union St., Allentown; stone bridge over Hosensack creek at Schultz's Mill, Lower Millford Township; constructing new bridge on Allentown and Coopersburg Turnpike near Centre Valley, Upper Saucon Township.

Labanon, Pa.—Until July 12 by Co. Comrs. for 2 span steel bridge over Turtle creek at West St., Lebanon; 160 ft. high truss steel bridge with creosoted plank and block floor over Caesar's creek, Massie Township. Steel to be used formerly in Kings Mill Bridge, salvage of 1913, with additional new material as needed, concrete abutments with piling foundation and earth fill. John M. Mulford, Co. Aud.

Manayunk, Pa.—Reported desired until June 23 by Pennsylvania R. R. Co., Broad St. Station, Philadelphia (Alex Shand, Ch. Engr.), for reinforced concrete and steel bridge across Schuylkill River, 1600 ft. long. Cost reported at $300,000.

Baltimore, Md.—Until June 23 by Bd. of Awards, care of City Register, for reconstructing old Chase St. Bridge on Bentalou St. over W. M. Ry. H. K. McCay, City Engr.

Marshall, N. C.—Reported desired until June 22 by County Highway Comn. for a 676 ft. steel bridge, about 420,000 lbs. steel and 600 cu. yds. concrete. J. B. Clingman, Engr., Marshall.

Columbus, Miss.—Until July 5 by Clerk, Bd. County Superv., for 4 steel and 3 concrete bridges. Gus E. Hauser, Engr., Columbus.

Canton, O.—Until July 7 by Co. Comrs. (C. L. Stoner, Clk.) for substructure for A. Fasnacht Bridge No. 91002, Perry Township, about 6400 lb. steel joists, 2; 10-in. 15 lb., 5100 lb. reinforcing steel rods, ½ x ¾ in. sq. twisted, etc.

Cincinnati, O.—Until July 2 by Co. Comrs. (Albert Reinhardt, Clk.) for checkered steel plate covering over eyebars of trusses of Beechmont Ave. bridge, Anderson Township, Specification No. 792; also separate bids reported desired for constructing bridges and culverts on Hamilton Road, in Springfield Township.

Until July 9 by Co. Comrs. (Albert Reinhardt, Clk.), for concrete arch culvert in Bog Run, Strimple Road, Whitewater Township. Specification No. 793.

Until June 25, same place as above, for constructing culvert in Cincinnati Ave., Miami Township. Specification No. 726.

St. Clairsville, O.—Reported desired until June 21 by E. Campbell, Co. Aud., for constructing steel truss superstructure and concrete abutments for United Church Bridge, Wheeling Township; steel truss superstructure of Pogue's Run Bridge, Richland Township, and reinforced concrete bridge, known as Chambers Bridge in Richland Township.

Sullivan, Ind.—Until June 26 by Co. Comrs. for constructing 6 concrete and 3 steel bridges. W. S. Bicknell, Co. Aud.

Illinois.—Until June 23 by State Highway Comn., Springfield, following bridges (no cement to be furnished by State):

Macoupin County, Sect. B, 236.4 cu. yd. concrete; estimated cost, $2,810.

McDonough County, Sect. A, 323.4 cu. yd. concrete, cost $4,167; Sect. B, 273.1 cu. yd., $3,951; Sect. C, 330.5 cu. yd., cost $4345; Sect. D, 179.5 cu. yd., cost $4,401.

Rockford, Ill.—Until June 28 by H. J. Gallagher, Chmn. Street and Alley Com., for concrete bridge over Keith Creek at Kishwaukee St.; estimated cost, $13,000, advertised in Engineering Record.

Hankinson, N. D.—Reported desired until July 6 by F. A. Burton, Co. Aud., for constructing 9 steel bridges.

Colfax, Wash.—Until July 5 by J. M. McCaw, Co. Engr., for constructing 3 bridges, one each at Pullman, Garfield and Farmington, to be 2 arches, 2 girders; cost, $9,800.

Colfax, Wash.—Reported desired until July 6 by Co. Comrs. for constructing following concrete bridges: 30 ft. at Farmington, 25 ft. at Garfield, 40 ft. at Clinton, and 60 ft. at Pullman. John M. McCaw, Co. Engr.

Seattle, Wash.—Reported desired until June 28 by Byron Phelps, Clk. Bd. Co. Comrs., for constructing Stossel Bridge, a steel structure. Probable cost, $15,000.

Until July 23 by Bd. Pub. Wks. (C. B. Bagley, Secy.) for constructing 2 steel bascule bridges on concrete foundations, one at 15th Ave., N. W., over Salmon Bay Waterway, and one at Fremont Ave., over Lake Washington Canal, advertised in Engineering Record. F. A. Rapp, Structural Engr., Room 307, City Hall.

Washington.—Until July 7 by State Highway Comn., Olympia, for constructing 80-ft. reinforced concrete arch bridge over Mashell River in Pierce County, Sect. 21, Township 16.

Clatskanie, Ore.—Reported desired until June 26 by A. F. Barnett, Co. Clk., St. Helens, for steel bridge over Clatskanie River near Clatskanie; cost, approximately, $20,000. L. J. Van Orshovem, Co. Engr.

Orange, Cal.—Reported desired until July 6 by Bd. City Trus. for constructing reinforced concrete bridge on E. Chapman Ave. Probable cost $10,000.

Santa Barbara, Cal.—Reported desired until June 24 by A. Christine Holmberg, City Clk., for constructing reinforced concrete bridge. Probable cost $20,000.

Anten Mills, Ont.—Until June 21 by Chas. Wattie, R. M. D., Anten Mills, for constructing concrete abutments for steel bridge on Minesing Road, Township Vespra, Simcoe County. Frank Barber, Consulting Engr., 57 Adelaide St., E., Toronto.

Victoria Harbor, Ont.—Until June 21 by Levi Taylor, for constructing concrete abutments for steel bridge on line between Matchedash and Tay Townships, over Bear Creek, Simcoe County. Frank Barber, Consulting Engr., 57 Adelaide St., E., Toronto.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Syracuse, N. Y.**—Contract awarded June 8 for constructing Taylor St. bridge 60-ft. span, 2 plate girders, concrete slab floors and sidewalks, concrete abutments, to John Young, Syracuse, at $9,492.

New Gretna, N. J.—Bids opened June 9 by Boards Chosen Freeholders, Counties of Atlantic and Burlington, at G. A. Hall, New York Ave., Atlantic City, for building new bridge 742 ft. bascule draw span over Mullica River at Chestnut Neck, near New Gretna; also for repairs to old substructure. Following are lowest bids received (A. H. Nelson, Engr., Atlantic County, Atlantic City, and Jas. Logan, Engr., Burlington County, Mt. Holly):

New bridge, Lupfer & Remick, Buffalo, $78,800; Snare & Triest, New York, $83,700; Kelly-McFeely Co., Camden, $92,000; Long & Broadhurst Co., Hackensack, $103,343.

For repairs to old bridge, only bidder Keily-McFeely Co., Camden, $55,000.

★**New Jersey.**—Contracts awarded to Logan Constr. Co., 13 Park Row, New York, for following county bridges:

Butler County, concrete arch bridge, approximate cost, $7,300.

Monmouth County, repair bridge at Brielle, over Manasquam River, at $2,500, and Cooper's Bridge, over Shrewsbury River, Red Bank, at $4,800.

★**Harrisburg, Pa.**—Contract for constructing concrete earth filled arch bridge over Wisconisco Creek (bids opened June 4) awarded to G. W. Ensign, Inc., Camp Hill, at $4,516. D. F. Lebo, Clk. Co. Comrs.

★**Lehighton, Pa.**—Contract for repairs to south abutment of bridge over Mahoning Creek awarded by Carbon County Comrs. at Mauch Chunk to Allentown Constr. Co. at $4,320.

★**Rome, Ga.**—Contracts awarded by Bd. County Comrs. for constructing bridges as follows: 2 of concrete over Etowah River, one at 2d Ave. and one at Broad St. to Hackedorn Constr. Co., Indianapolis, Ind., at $61,500 each; for steel draw bridge over Oostanaula River at 5th St. to Hardaway Contr. Co., Columbus, at $87,000. (Bids opened May 21.)

★**Lake Charles, La.**—Contract awarded by County Highway Dept., June 9, for constructing reinforced concrete viaduct approach to Calcasieu River Bridge, to Missouri Valley Bridge & Iron Co., Leavenworth, Kan., as follows: 1000 cu. yd. 1:2:4 concrete, $15.90; 5000 lin. ft. concrete piling, $1.27; 171,000 lb. reinforcing steel, 3½ cts.; 1730 sq. yd. bituminous pavt., $1; total, $29,330. Warren Dredging Co. secured contract for earth fill approach. F. H. Frankland, Bridge Engr.

★**Henderson, Ky.**—Contract awarded for constructing steel and concrete bridges to H. H. Lilly, of Smith Mills, Ky., at $5,505 (bids opened June 7). S. H. Kimmell, Co. Road Engr.

★**Columbus, O.**—Contract awarded by Co. Comrs. to Stewart Eng. Cor., 17 Battery Pl., New York, for constructing Agler Rd. bridge over Alum Creek, to be of reinforced concrete, 11 spans, total length 1170 ft., on pile foundations, to be completed by Sept. 1, 1916. Walter A. Braun, County Bridge Engr.

★**Dayton, O.**—Contracts awarded by Co. Comrs. June 11 for constructing steel bridges (bids opened May 7) as follows: Bridge 64, over Mad River, to Francis Minnigan, Dayton, for substructure, at $11,889, and for superstructure, to Central State Bridge Co., Indianapolis, $11,100. Bridge 74, over Wayne River, to Geiger & Fink, Dayton, for substructure, at $9,143, and superstructure, to Brookville Bridge Co., Brookville, at $12,990.

★**Youngstown, O.**—Contract for constructing bridge on Palmyra Rd. at Milton awarded by Bd. Control to Hunter Constr. Co., Youngstown, at $32,675.

★**Youngstown, O.**—Contract awarded by Bd. Pub. Service to Hunter Constr. Co., Youngstown, for constructing steel bridge over Mahoning River, at $32,675.

★**Chicago, Ill.**—Contracts for constructing trunnion bascule bridge over Chicago River at W. Monroe St. awarded June 1 by Union Station Co., 521 W. Adams St., as follows: Substructure to Fitzsimmons & Connell Dredge & Dock Co.; superstructure to Ketler-Elliott Erection Co., and electrical equipment to C. H. Norwood (contractors all of Chicago).

Illinois.—Following lowest bids opened June 9 by State Highway Comn., Springfield, for State aid bridge work:

Franklin County, Sect. B, 113 cu. yds.: W. Lough & Son, Marion, $1,200.

Pulaski County, Sect. A, 277 cu. yds.: Bland & Fitzgerald Co., Cairo, $2,922.

Jasper County, Sect. A, 210 cu. yds.: Lowest bidders, Candy & McElroy, Robinson, $2,240; Sect. B, 171.7 cu. yds., $2,000; Sect. C, 201.5 cu. yds., $2,465.

Scott County, Sect. B, 322.5 cu. yds.: C. A. Wever & Son, Clayton, $4,300.

★**Montezuma, Ia.**—Bids were opened June 7 for constructing concrete slab bridge, 9 steel bridges, and 15 reinforced concrete culverts. Contract awarded to Iowa Bridge Co., Des Moines, for all cement structures at $7,262, and to N. M. Stark & Co., Des Moines, for all steel structures, at $17,693. W. C. McKee, Co. Aud.

★**Brainerd, Minn.**—Contract awarded by Co. Comrs. for redecking with creosoted blocks Laurel St. bridge over Mississippi River to Minneapolis Bridge Co., Minneapolis, at $6,000. C. W. Mahlum, Co. Aud.

★**Houghton, Mich.**—Contract to construct concrete piers and substructure of Portage Lake Bridge awarded by Duluth, South Shore & Atlantic Ry. Co. to Foundation Co., 115 Bway., New York, N. Y.

★**Tumwater, Wash.**—Contract to construct concrete bridge of Luten Design in Tumwater awarded by County Comrs. to Chas. C. Huber, Central Bldg., Seattle, at $13,798.

★**Stockton, Cal.**—Contract awarded by Co. Comrs. to Tibbits-Pacific Co., San Francisco, for constructing 2 bridges (bids opened June 8) as follows, (a) Middle River Bridge, three 95-ft. spans and one 260-ft. draw span, cylinder piers filled with concrete resting on pile foundation as aid to earth support, $71,845, (b) Old River Bridge, two 135-ft. spans and one 260-ft. draw span, same class of foundation as other bridge, $71,840. Other bids: Mesmer & Rice, Los Angeles, (a) $75,410, (b) $78,380; Thompson Bridge Co., (a) $77,097, (b) $81,659; Ross Constr. Co., Sacramento, (a) $78,082, (b) $77,082; Midland Bridge Co., (a) $79,100, (b) $79,768. F. E. Quail, Co. Engr.

★**Twin Falls, Idaho.**—Contract for constructing 4 steel bridges in Twin Falls County at Murtaugh and Hanson awarded by County Comrs. to Midland Bridge Co., Twin Falls, at $16,561.

Vancouver, B. C.—Following lowest bids opened by City Council for reconstructing burned section of Connaught Bridge: Cotton Co., Ltd., Vancouver, $72,330; Hodgson, King & McPhalan Bros., Ltd., Vancouver, $87,390, or $39,844 for dismantling and erecting alone; Wallace Shipyards, Ltd., Vancouver, $87,677, and Booker, Campbell & Whipple, Bellingham, Wash., $77,900.

Cincinnati, O.—Following are unit prices of 4 lowest bids opened June 1 by Bd. Pub. Service (F. S. Krug, Ch. Engr.) for constructing Park Ave. bridge over Kemper Lane: (a) D. P. Foley, Cincinnati, $125,355; (b) A. J. Yawger, Indianapolis, Ind., $136,294; (c) Ohio Valley Contr. Co., Cincinnati, $142,429; (d) Roos Bros., Cincinnati, $143,875.

	(a)	(b)	(c)	(d)
7,000 cu. yds. trench excav.—earth	$1.00	$0.75	$1.25	$1.50
2,000 cu. yds. trench excav.—rock	2.50	2.00	2.50	2.25
3,600 cu. yds. reinf. conc. footings and abutments	9.00	9.25	8.00	9.00
650 cu. yds. reinf. concrete retaining walls	16.00	14.20	14.00	17.00
100 cu. yds. reinf. concrete stairs	25.00	20.00	18.00	25.00
Reinf. concrete superstructure (lump sum)	60,950.00	49,200.00	50,000.00	13,000.00
26,000 cu. yds. grading excav	0.60	0.45	0.60	0.50
80 lin. ft. drains, 18 in	2.50	2.00	2.50	2.50
500 lin. ft. drains, 12 in	1.50	1.25	1.50	1.50
175 lin. ft. drains, 6 in	1.00	0.75	1.75	1.00
3 manholes, ea	150.00	100.00	150.00	150.00
7 inlets, No. 1, ea	75.00	50.00	125.00	75.00
4 inlets, No. 3, ea	100.00	75.00	90.00	100.00
1,600 lin. ft. curbs—granite	1.10	1.00	1.10	1.10
1,300 lin. ft. curbs—concrete	0.80	0.75	0.80	0.70
150 cu. yds. concrete base for paving	6.00	5.45	6.00	5.50
300 sq. yds. concrete paving	1.50	1.25	1.50	1.50
800 sq. yds. asphaltic concrete paving	1.50	1.50	1.20	1.50
9,000 sq. yds. bituminous macadam pavement	1.30	1.20	1.20	1.15
1,000 sq. yds. bituminous stone walks	1.30	1.20	1.30	1.15
10,000 sq. ft. cement walks	0.15	0.12½	0.15	0.14
480 lin. ft. pipe railing (2 bar)	1.25	1.00	1.10	1.00
3,000 sq. yds. sodding	0.40	0.35	0.40	0.30

PAVING AND ROADS

PROPOSED WORK.

Malden, Mass.—See "Sewerage and Sewage Disposal."

Buffalo, N. Y.—Finance Com. of Council recommends bond issue of $120,000 to pay city's share of repaving streets.

City Council voted to pave Edison, Krakow, Kopernick, Matjeko and Rejtan Sts. and West Ave. with asphalt

Jersey City, N. J.—Contract is about to be let by City Comrs. for paving Jackson, Pavonia Aves. and Mercer St.

Ardmore, Pa.—Bonds for $30,000 for highway improvements to be sold June 23 by W. A. L. Barker, Chmn. Finance Co., Township Lower Merion, Ardmore.

York, Pa.—City Council reported to have authorized 2 miles of additional paving.

Charleston, W. Va.—Citizens Kanawha County voted $750,000 bonds for constructing roads.

Huntington, W. Va.—Citizens Cabell County voted $600,000 bonds for constructing roads.

Waycross, Ga.—City Comrs. contemplate paving Tebeau and Gilmore Sts. with brick; cost about $30,000.

Bradentown, Fla.—See "Hydraulic Construction and River Improvement."

Haughton, La.—Citizens voted $50,000 bonds for constructing road from Red Chute to Webster Parish Line via Haughton.

Pass Christian, Miss.—About $20,000 will be spent by City Council for improving sidewalks.

Maynardville, Tenn.—About $100,000 to be spent on road improvements in Union County.

Tazewell, Tenn.—Bonds amounting to $372,000 sold by Comrs. Claiborne County for constructing roads.

Paducah, Ky.—Surveys will soon be made on State-Aid Road on edge or Paducah-Hinkleville Road. Work is done under direction of Walter F. Brooks, U. S. Highway Engr., Paducah.

Celina, O.—Bonds for $20,500 for Gerlach Road Improv, will be sold July 8 by J. F. Steinbrunner, Co. Aud.

Cincinnati, O.—Bonds for $259,000 for street improvements will be sold June 24 by Wm. Leimann, City Aud.

Cleveland Heights, O.—See "Water Works."

Columbus, O.—City Council voted to pave Buckingham, Kossuth, Blenkner Sts., Ryan and Lexington Aves.

Bonds for $35,000 for county road improvement will be sold June 25 by Co. Comrs. (John Scott, Clk.)

Contract about to be let by Bd. Public Service for paving Long, High, 18th, W. Broad and Main Sts.

City Council voted to pave 5th, Pearl, 2d, Town, 8th, Ann, Tiffin Sts., Peters, Fairwood and Northwood Aves.

Cortland, O.—Bonds for $15,000 for road improvement in Fowler Township will be sold June 28 by H. W. Scheidegger, Township Clk., R. F. D. No. 2, Cortland.

Lorain, O.—Bonds for $16,000 for improving certain streets will be sold July 13 by Geo. N. Damon, City Aud.

Niles, O.—Bonds for $59,000 for paving will be sold July 1 by Homer Thomas, City Auditor.

Tiffin, O.—Bonds for $64,000 for street paving will be sold July 6 by Albert J. Hafley, City Aud.

Washington, O.—Bonds for $45,000 for East Court St. improvement will be sold July 12 by John N. McFadden, City Aud.

Warren, O.—Bonds for $43,000 for Youngstown-Sharon Road improvements will be sold June 21 by W. R. Harrington, Co. Aud.

Wauseon, O.—Bonds for $38,500 for road improvements will be sold July 7 by W. W. Ackerman, Co. Aud.

Gary, Ind.—Resolution passed by Bd. of Pub. Wks. for repairing 7th Ave. with wood block pavt., 3200 sq. yds.; cost $9,000.

Belding, Mich.—Smith & Boulay, Nasby Bldg., Toledo, O., engaged to prepare plans for paving Main, Bridge, Pleasant, Pearl Sts.

Manistique, Mich.—Bonds amounting to $25,000 sold by County Comrs.

Marshall, Mich.—Smith & Boulay Co., Nasby Bldg., Toledo, O., retained to prepare plans for paving Marshall and Kalamazoo Aves. with either gravel or concrete, concrete curb and gutter.

Rock Island, Ill.—Plans approved by Bd. Local Improvements for paving with brick 9th St.; cost, $84,749.

St. Paul, Minn.—Bonds for $500,000 to finance street paving and other local improvements will be sold July 7 by Sinking Fund Com.

Herington, Kan.—Proposed to pave S. B and N. D Sts., about 10,000 sq. yds. with brick or asphaltic concrete, including 7,000 ft. moulded concrete curb and gutter; cost $17,000. Engineer, Karl Riddle, Abilene. C. N. Hull, City Clk.

York, Neb.—City considering issue of $150,00 bonds for vertical fiber brick paving on gravel concrete foundation on Grand, 5th and 9th Sts. Engineer, Ralph P. Wagner, of Lincoln. A. B. Chatterton, City Clk.

Newport, Ark.—Bonds for $11,000 for Walnut Street Improv. Dist. No. 1 will be sold June 22 by Comrs. of said Dist., Watson Bldg. (Dr. H. Owne, Chmn.)

Sheridan, Ark.—About $40,000 worth of gravel will be purchased by Road Comrs. Grant County.

Austin, Tex.—Citizens voted $425,000 bonds June 9 for paving and drainage. M. C. Wellborn, City Engr.

Karnes City, Tex.—Citizens voted $75,000 bonds for constructing roads in Karnes City Dist.

Tulsa, Okla.—Election will soon be held to vote on issuing $100,000 bonds to construct 14-mile boulevard.

Bellingham, Wash.—Contract about to be let for paving S. Elk St.; estimated cost, asphalt, $10,450; and concrete, $8,810. H. J. Korthauer, City Comptroller.

Chehalis, Wash.—Contract about to be let by City Comn. for paving National Ave. with concrete; cost, $15,000.

Everett, Wash.—City Council considering paving with asphalt and constructing cement sidewalks on Rucker Ave.; cost, about $12,000.

Plans are being prepared by Hans Mumm, Jr., County Engineer, for resurfacing Snohomish County Rd., from Everett to Mukilteo, distance 4 miles; cost about $14,000.

Seattle, Wash.—Bd. Pub. Wks. voted to pave Rainier Ave. with brick; cost, $44,000.

City Engineer estimates cost of paving as follows: Utah St., $87,766; W. Lander St., $13,174; Mill St., $12,000; and E. Valley St., $22,000.

Contract about to be let by Comrs. King County for constructing following roads: Between Duwamish River and Renton Junction, 4 miles, cost about $100,000, and between Enumclaw and Buckley, 3 miles.

Vancouver, Wash.—County Comrs. approved plans for following roads to be constructed by State aid: Permanent Highway No. 3 from Camas west, cost $14,443; Highway No. 4 from city limits of Ridgefield, cost $10,395; Permanent Highway No. 5, through Minnehaha, cost $10,783.

Portland, Ore.—City Council considering extending Starke St.

San José, Cal.—City will pave with 1½-in. Topeka top, 80,000 sq. yds. with 4½-in. concrete base and 80,000 sq. yds. with asphaltic concrete base. Milton Maggini, City Engr.

Peninsular Ry. Co. will pave its right-of-way on the above with concrete base and sheet asphalt wearing surface; this work will require about 50,000 sq. yds.

BIDS DESIRED.

Boston, Mass.—Reported desired until June 22 by Boston Transit Comn. for 9000 sq. yds. wood block pavt. on Boylston St.

Tiverton, R. I.—Until July 3 by Town Clerk for macadamizing portion of Stafford Road. Edw. M. Corbett, Engr., 7 Bedford St., Fall River.

Meriden, Conn.—Until June 29, by Bd. Pub. Wks. for wood block vitr. brick and reinforced concrete pavement on E. and W. Main Sts., advertised in Engineering Record.

Stamford, Conn.—Until June 30, by Common Council, at office of City Clerk, for Summer St., 12,550 sq. yds., and Main St., 13,000 sq. yds., etc., advertised in Engineering Record. Paul Nash, City Engr.

Albany, N. Y.—Until July 7 by State Comn. of Highways (Edwin Duffey, Comr.), 55 Lancaster St., Albany, for repair of highways in various counties, advertised in Engineering Record.

New York, N. Y.—Until June 24 by Douglas Mathewson, Pres. Boro. Bronx, for paving with granite blocks and sheet asphalt, Fordham Rd.; with bituminous concrete, E. 172d St., constructing sewers, setting curbs and flagging sidewalks on Tyndall Ave., requiring in all 12,450 sq. yds. sheet asphalt, 20,800 sq. yds. granite block and 1165 sq. yds. bituminous concrete pavement, 4810 sq. ft. concrete sidewalk and 4410 sq. ft. bluestone flagging, etc.

Until June 28 by Marcus M. Marks, Pres. Manhattan Boro., for repaving portion of 38th and 62d Sts. and West End Ave. with sheet asphalt, 12,130 sq. yds., with granite block on 36th St. and Amsterdam Ave., 9,050 sq. yds.

Millburn, N. J.—Until June 21 by Township Com. (Wm. Byrd, Clk.) for macadamizing portions of Prospect and Mountain Aves., Laurel, Cypress, Pine and Elm Sts.

Trenton, N. J.—H. F. Harris, Asst. City Engr., writes bids will be opened June 30 for paving Whittaker and other streets, about 26,000 yds. asphalt concrete, 1500 yds. vitr. brick gutters, 4000 ft. concrete curb and coping, 500 ft. blue stone, 5-in. concrete foundation. Probable cost of work $50,000. Alternate bids will be received for natural asphalt or residual asphalt. Abram Swan, Jr., Engr. of Streets. Frank Thompson, City Clk.

Lebanon, Pa.—Until July 1 by T. R. Crowell, City Engr., for paving 8th St., about 4000 sq. yd.; 9th St., about 12,400 sq. yd., and Lehman St., 8300 sq. yd., advertised in Engineering Record.

Lebanon, Pa.—Reported desired until July 1 for about 24,700 sq. yds. street paving. Address T. R. Crowell, City Engr.

Philadelphia, Pa.—Until July 2 by M. L. Cooke, Dir. Dept. Pub. Wks., for improving S. Broad St. Plaza, advertised in Engineering Record.

Baltimore, Md.—Until June 23 by City Paving Comn. for Contract 119, Camden St., to include 1850 sq. yd. granite block paving, 300 lin. ft. armored concrete curb and circles, etc., and Contract 120, including Tyson and Trenton, about 9100 sq. yd. vitr. block pav., cement fill, mortar cushion, 4-in. concrete base; 3000 lin. ft. armored concrete curb and circles; 900 lin. ft. old stone curb and circles redressed and reset; 1300 cu. yd. grading.

Elkton, Md.—Until June 24 by Co. Comrs. for public road between Warwick and Cecilton, a distance of about 3 miles; also for 2 miles of road between Five Points and Rowlandville.

Frederick, Md.—Until July 3 by Co. Comrs. for building about 1.83 miles of State Aid road near Petersville, and 1.04 miles in town of Brunswick.

Trenton, Ga.—Until July 6 by Bd. County Road Comrs. (C. S. Turner, Secy.) for improving Chattanooga-Birmingham Highway through Dade County. Edw. E. Betts Eng. Co., Engrs., 703 James Bldg., Chattanooga, Tenn.

Alabama—Until July 13 by Co. Comrs. as follows (W. S. Keller, State Highway Engr., Montgomery):

At Tuskegee—Grading, draining and surfacing with gravel part of Montgomery and Tuskegee Road, cost $4,616.

At Fayette—Graveling part of Fayette and Tuscaloosa Road, cost $4,616.

Carlisle, Ky.—Until June 29 by J. F. Sugg, Co. Court Clk., for reconstruction of about 16 miles of turnpike in Nicholas County; estimated cost $35,000.

Cincinnati, O.—Until June 25 by Co. Bd. Comrs. (Albert Reinhardt, Clk.) for improving Compton Rd., from Cincinnati and Hamilton Pike to Carthage Pike, Springfield Township.

Until July 9 by Co. Comrs. (Albert Reinhardt, Clk.) for improving Lee Creek Road, Harrison Township, Specification 789.

Columbus, O.—Until June 28 by Geo. A. Borden, Dir. Pub. Service, for paving with brick, asphalt, wood block, bitulithic and other materials on portions of various streets, including Broad, 5th, 4th and other streets.

Cleveland, O.—Until July 3 by Co. Comrs. (E. G. Krause, Clk.) for paving Brooklyn-Brighton Bridge floor and approaches. W. A. Stinchcomb, Co. Surv.

Lockland, O.—Until July 6 by Ray Miley, Village Clk., for paving with vitr. brick on concrete foundation, portion of Mill St., including concrete curb and gutter.

Malvern, O.—Reported desired until June 29 for 29,650 sq. yds. brick pavement on natural gravel foundation, cement grout filler, 13,740 ft. concrete or stone curb, etc. Address J. G. Murdson, Clk.

Middletown, O.—Reported desired until June 22 by City Comrs. for 66,750 sq. ft. cement sidewalks. John Kunz, Clk.

Norwalk, O.—Reported desired until June 23 by Co. Comrs. (Chas. E. Bloomer, Clk.) for grading, constructing waterbound macadam or concrete pavt. on Angling Road.

Struthers, O.—Until June 22 by Clk. Poland Township, Struthers, for grading and macadamizing Cemetery Hill Rd., Poland Township.

Wakeman, O.—Until June 26 by Bd. Trus., Clarsfield Township (E. E. Bowen, Clk., R. F. D. No. 4, Wakeman), for paving with waterbound macadam portions of Sections 1, 2 and 3, Clarksfield Roadway.

Marion, Ind.—Until June 22 by Bd. Pub. Wks. for improving Botts and Nelson Sts., including draining, curbing, cement sidewalks, etc.

Sturgis, Mich.—Until June 24, by Benj. S. Peck, City Clk., for about 20,000 sq. yds. vitr. brick pavt., 11,000 lin. ft. cement, curb and gutter, necessary drainage, etc.

Brockton, Ill.—Until June 28 by H. Lee Beck, Town Clk., for constructing combination rock and gravel roads on 4 highways in Embarrass Township, all roads to be constructed 10 ft. wide with 8 in. crushed rock base and 6 in. gravel wearing surface. Sections to be improved as follows: 2700 lin. ft. on Road 1; 11,880 lin. ft. new construction and 3140 lin. ft. gravel on Road 3; 5460 lin. ft. on Road 6, and 5375 lin. ft. on Road 7.

Cairo, Ill.—Until June 28 by Bd. Local Improv. (W. H. Wood, Pres.) for paving in Dist. No. 2, including 4727 cu. yds. excav. and grading, 24,162 sq. yds. gravel macadam pavt., 17,950 lin. ft. combination concrete curb and gutter, etc.

Chicago, Ill.—Until June 22 by L. E. McGann, Comr. Pub. Wks., for furnishing f.o.b. cars Marshall Boule. Municipal plant, 475,000 paving brick; also until June 23, f.o.b. cars Chicago, approximately 3000 sq. yd. creosoted wood blocks.

Until June 25 by Bd. Local Improv. (Edw. J. Glacklin, Secy.) for paving portions of various streets with vitr. brick, asphalt and concrete.

Cicero, Ill.—Until June 21 by Bd. Local Improv. (Geo. Comerford, Pres.) for cement sidewalks on portions of 15th and 16th Sts. Chas. Stoffel, Town Clk.

Elgin, Ill.—Until June 26 by City Clerk, for paving portion of N. State St., 12,062 sq. yds. brick on 5-in. concrete found., [illegible] lin. ft. cement concrete combined curb and gutter and 2895 lin. ft. cement concrete curb. Morgan H. Brightman, Engr., Elgin

Mays Station, Ill.—Reported desired until June 30 by Cliff Andrews, Town Clk., for 6500 ft. gravel road on Redmond Road; 4800 ft. gravel road and one concrete culvert on Culbertson Road; 4400 ft. gravel road and 4 concrete culverts on Stewart Road. Karl J. Barr, Co. Supt. Highways, Paris.

Beloit, Wis.—Until 7 P. M., June 21, by City Clerk for paving; Engineers, Worley & Black, Reliance Bldg., Kansas City, Mo.

Shawano, Wis.—Reported desired until June 25 for 9233 sq. yds. macadam pavt. and 3763 lin. ft. curb and gutter. Address O. C. Rollman, Co. Highway Engr.

Mason City, Ia.—Reported desired until June 21 by J. H. McEwen, City Clk., for about 10,600 sq. yds. paving, either natural pitch lake asphalt, Trinidad Lake asphalt, Bermudez asphalt, or reinforced concrete.

Fairmont, Minn.—Until June 29 by H. B. Tuttle, City Clk., for approximately 24,000 yds. paving and 6000 ft. curbing. Frank O. Jones, City Engr.

Granite Falls, Minn.—Until July 2 by G. H. Wilson, Co. Aud., for constructing State Rural Highway No. 1-B, to cost $37,543, and includes grading (including construction dragging), 88,915 cu. yds., 7440 lin. ft. turnpiking, hauling 22,273 cu. yds. gravel, installing 93 corrugated culverts, etc.

Hopkins, Minn.—Reported desired until July 6 by E. A. Close, Village Recorder, for constructing cement concrete walks during ensuing year.

Omaha, Neb.—Until June 22 by Thos. J. Flynn, City Clk., for 27,000 sq. yd. paving and 14,000 lin. ft. of curb. Bids to be received on various material, subject to selection by property owners after bids are opened. Weston Townsend, City Engr.

Kansas City, Mo.—Until June 22 by Bd. Pub. Wks. for paving various streets with asphaltic concrete, vertical fibre vitr. brick block and Portland cement concrete pavt., artificial stone sidewalks and curbing on several streets.

Everett, Wash.—Until June 28 by Mae Weatherbee, Co. Aud., for constructing Permanent Highways Nos. 17 and 18, including grading, draining and hard surfacing, etc. Hans Munn, Jr., Co. Engr.

Seattle, Wash.—Reported desired until June 29 by Byron Phelps, Co. Aud., for grading, graveling, etc., Permanent Highway No. 9-A. Probable cost $20,000. Also until July 6 for grading, graveling, etc., Permanent Highway 7-A (Newport-Issaquah Rd.). Probable cost, $20,000.

Washington.—Reported desired until July 12 by State Highway Dept., Olympia, for constructing a 15-mile section between Mud Bay and McCleary, estimated to cost $38,000.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Woonsocket, R. I.**—Contract for paving W. School, S. Main, Clinton Sts. awarded to Simpson Bros. Cor., Boston, Mass., at $43,000. C. W. Mills, City Engr.

★**Connecticut.**—Contracts awarded as follows by Chas. J. Bennett, State Highway Comr., Hartford (bids opened June 1):

Hartford, about 6895 ft. reinforced concrete on Maple Ave., to Leonardo Suzion, Meriden, at $19,500.

Andover, about 7300 ft. native stone macadam on Andover-Hebron Road., to A. B. Cadwell, New Britain, at $7,670.

Somers, about 3198 ft. native stone macadam on Stafford Road, to A. D. Bridges Sons, Inc., at $5,033.

Milford, about 12,015 ft. bituminous macadam on New Haven Turnpike, to Robt. D. Daley Co., New Haven, at $18,479.

Brooklyn, N. Y.—Following are lowest bids opened June 9 by L. H. Pounds, Boro. Pres., for paving:

Regulating and repaving with granite on 6-in. concrete foundation Wythe Ave. from S. 8th St. to N. 11th St.: Clancy & Nuhn Contr. Co., 31 Hunterspoint Ave., Long Island City, $58,258 (lowest bidder); M. T. Meagher, 15 Orient Ave., Brooklyn, $58,559; M. J. O'Hara, 557 3d St., Brooklyn, $59,313; Wm. Farmer, 18 Russell St., Brooklyn, $59,863.

Unit prices of lowest bidder—

1500 lin. ft. old curb reset in concrete	$0.80
7150 lin. ft. new curb set in concrete	.80
200 lin. ft. granite heading stones set in concrete	.80
2795 cu. yd. concrete, outside railroad area	.01
25 cu. yd. concrete, within railroad area	.01
16,915 sq. yd. grade 1 granite pavt., with joint fill of coal tar, pitch and sand	3.00
140 sq. yd. adjacent pavt. relaid	.50
1 Park basin head, furnished and set	35.00
25 new covers and heads for sewer manholes	12.00

Repaving with permanent iron slag pavt. on 6-in. concrete East, Market Aves., West and other streets: Jos. J. B. Lamarsh, 360 Ovington Ave., Brooklyn, $45,952 (lowest bidder); MacFarlane Contr. Co., 504 Park Pl., Brooklyn, $46,-832; Borough Asphalt Co., 1301 Metropolitan Ave., Brooklyn, $47,144; Robertson Constr. Co., 3d Ave. and 79th St., Brooklyn, $49,585.

Unit prices of lowest bidder—

785 lin. ft. old curb reset in concrete	$0.01
4030 lin. ft. new curb set in concrete	1.00
295 lin. ft. bluestone heading stones set in concrete	1.25
2120 cu. yd. concrete	4.50
12700 sq. yd. iron slag pavt., with joint fill of cement grout	2.50
200 sq. yd. adjacent pavt, relaid	1.00
5 new covers and heads for sewer manholes	11.00

Repaving with permanent asphalt on 6-in. concrete Fulton St. from Reid Ave. to Williams Pl.: Brooklyn Alcatraz Asphalt Co., 407 Hamilton Ave., Brooklyn, $44,070 (lowest bidder): Barber Asphalt Paving Co., 233 Bway., New York, $45,-825; Sicilian Asphalt Paving Co., 41 Park Pl., New York, $46,714; Uvalde Asphalt Paving Co., 1 Bway., New York, $47,591.

Unit prices of lowest bidder—

1510 lin. ft. old curb reset in concrete	$0.60
11,070 lin. ft. new curb set in concrete	.95
200 lin. ft. bluestone heading stones set in concrete	.75
75 lin. ft. granite heading stones set in concrete	.90
3890 cu. yd. concrete, outside railroad area	3.60
23,360 sq. yd. asphalt pavt.	.75
40 sq. yd. adjacent pavt. relaid	.40
2 sewer basins rebuilt	75.00
74 noiseless covers and heads for sewer manholes	10.00

Brooklyn, N. Y.—Bids opened June 9 by L. H. Pounds, Boro. Pres., for paving as follows:

Regulating and repaving with granite on 6-in. concrete foundation 2d Ave. from 43d St. to 52d St. Lowest bidder, Ulrich & Co., 939 Lafayette Ave., Brooklyn, as follows: 600 lin. ft. old curb reset in concrete, 50 cts.; 850 lin. ft. new curb set in concrete, 85 cts.; 250 lin. ft. granite heading stones set in concrete, $1; 1260 cu. yd. concrete, outside railroad area, $4.25; 175 cu. yd. concrete, within railroad area, $2.45; 7585 sq. yd. grade 1 granite pavt., with joint fill of coal tar pitch and sand, $2.45; 145 sq. yd. adjacent pavt. relaid, $1; 2 new sewer manhole covers, $10; 1 new cover and head for sewer manhole, $10; total, $25,361. Next 3 lowest bids: M. J. O'Hara, 557 3d St., Brooklyn, $25,463; Frank J. Gallagher, 490 Park Pl., Brooklyn, $26,426; C. A. Myers Contr. Co., 1371 Nostrand Ave., Brooklyn, $27,260.

Repaving with asphalt on 6-in. concrete foundation Gates Ave. from Franklin Ave. to Reid Ave. Lowest bidder, Sicilian Asphalt Paving Co., 41 Park Pl., New York, as follows: 190 lin. ft. old curb reset in concrete, 60 cts.; 110 lin. ft. new curb set in concrete, 93 cts.; 2530 cu. yd. concrete, outside railroad area, $5.15; 15,405 sq. yd. asphalt pavt., outside railroad area, 75 cts.; 5 sq. yd. adjacent pavt., relaid, $2; 1 new iron basin head, $50; total, $25,379. Next 3 lowest bids: Uvalde Asphalt Paving Co., 1 Bway., New York, $27,336; Barber Asphalt Paving Co., 233 Bway., New York, $29,970; Brooklyn Alcatraz Asphalt Co., 407 Hamilton Ave., Brooklyn, $31,575.

Repaving with Grade 1 granite on 6-in. concrete Washington St. from Front St. to Tillary St. Lowest bidder, Ulrich & Co., 939 Lafayette Ave., as follows: 190 lin. ft. old curb reset in concrete, 50 cts.; 2580 lin. ft. new curb set in concrete, 87 cts.; 120 lin. ft. granite heading stones set in concrete, $1; 1040 cu. yd. concrete, $4; 6240 sq. yd. grade 1 granite pavt., with joint fill of coal tar pitch and sand, $2.48; 65 sq. yd. adjacent pavt. relaid, 50 cts.; 4 new covers and heads for sewer manholes, $12; total, $22,175. Next 3 lowest bids: C. A. Myers Contr. Co., 1371 Nostrand Ave., Brooklyn, $22,376; M. J. O'Hara, 557 3d St., Brooklyn, $22,-434; Wm. Farmer, 18 Russell St., Brooklyn, $23,151.

★**Buffalo, N. Y.**—Contract for paving Garfield St. awarded by Bd. Aldermen to Spire & Prior, Buffalo, at $14,988.

★**Little Falls, N. Y.**—Contract for paving E. Monroe St. awarded by Bd. Pub. Wks. to Warren Bros. Co., Boston Mass., at $22,959.

★**Victor, N. Y.**—Contract for paving Main and Cedar Sts. awarded to Schroeder-Hicks Contr. Co., Rochester, at about $23,272.

★**Jersey City, N. J.**—Contracts for paving awarded by City Comrs. as follows: Grove St., to Van Keuren Contr. Co., and Clerk St. to Shreffler-Burns Co.

Philadelphia, Pa.—Following are average low bids opened May 26 by Dept. of Pub. Wks., Bureau of Highways, for paving (Wm. H. Connell, Ch. Bureau of Highways):

Asphalt paving: Eastern Paving Co., Penn Square Bldg.; Mack Paving & Constr. Co., 20th and Sedgley; Barber Asphalt Paving Co., Land Title Bldg.; asphalt pavt., 6-in. concrete base, average price, $1.532 per sq. yd., and vitr. block gutter pavt., 6-in. concrete base, $2.358 per sq. yd.; total of low bids, $22,391.

Repaving with asphalt: Union Paving Co., 30th and Locust Sts.; Barber Asphalt Paving Co., Land Title Bldg.; asphalt pavt., 6-in. concrete base, average price $1.331 per sq. yd.; vitr. block gutter, 6-in. concrete base, $2.948 per sq. yd.; total, $10,473.

Repaving with vitr. block: McNichol Paving & Constr. Co., 1923 Cherry St.; vitr. block, 6-in. concrete base, $2.092 per sq. yd.; total, $13,406.

Repaving with wood block: Danl. J. Lynch, 4127 Mantua St.; McNichol Paving & Constr. Co., 1923 Cherry St.; wood block pav., 6-in. concrete base and mortar cushion, $2.365 per sq. yd.; total, $100,758.

Resurfacing with asphalt: Mack Paving & Constr. Co., 20th and Sedgley; Union Paving Co., 30th and Locust Sts.; Barber Asphalt Paving Co., Land Title Bldg.; asphalt, 6-in. concrete base, $1.277 per sq. yd.; total, $19,518.

Furnish and apply bituminous material: Coal tar base, cold application, 7 cts. per gal.; liquid asphalt, hot application 7.5 cts. per gal.; total, $10,000.

★**Baltimore, Md.**—Contract awarded June 9 by Bd. of Awards for paving with sheet asphalt Lombard and Washington Sts. to P. Flanigan & Sons at $53,790.

★**Washington, D. C.**—Contract for paving streets with asphalt awarded by Comrs. D. C. to Warner-Quinlan Co., Syracuse, N. Y., at $1.49 per sq. yd, or total about $100,000. Montezuma brand selected.

★**Clarksburg, W. Va.**—Contract awarded to Ferguson & Tolbert, for 1½ miles of brick pavt. on concrete base at $1.96 per sq. yd.; grading unclassified 44 cts.; also 3 bridges with concrete arches (lump sum) $3,866. C. C. Fittro, County Road Engr.

★**Huntsville, Ala.**—Contract awarded by County Comrs. to F. L. Powell, of Huntsville, at $11,567, to grade, drain and macadamize Big Cove Road. W. T. Lawler, Judge of Probate.

★**Tuscaloosa, Ala.**—Contract for constructing Huntsville and Byler Roads awarded by State Highway Engr. Montgomery and Bd. Pub. Wks., to Tuscaloosa Concrete Co., Tuscaloosa, at $17,000.

★**Lake Charles, La.**—Contract for gravel 2 miles Shell Beach Drive awarded to J. C. Anderson at $12,000.

★**Chattanooga, Tenn.**—Contract for constructing concrete pike awarded by Co. Comrs. to McIsaac & Gentry, Chattanooga, at $100,796. Other bids: Nichols Constr. Co., Atlanta, Ga., $111,779; Bender Brown, Stein Co., Chattanooga, $115,251; Noll Constr. Co., Chattanooga, $117,186; Vang Constr. Co., Chattanooga, $143,020. L. B. Bryan, Co. Engr.

★**Maysville, Ky.**—Contract awarded for reconstructing with brick about 38,000 sq. yds. and for 19,500 lin. ft. cement curb on portions of various streets divided between Ruh & Schmidt Co. and John Exterkamp, both of Covington, and Farrow & Co., Maysville. W. L. Glazier, Engr., Newport.

★**Arlington, O.**—Contract awarded by City Council for paving Main St. to Contractor Ringwald, of Chillicothe, as follows: 3800 yds. excav., 33 cts.; 6209 yds. brick pav., $1.45; 2972 ft. stone curb, 44 cts.; 286 ft. stone edging, 22 cts.; 100 sewer inlets, $25; 3300 ft. 12, 10 and 8-in. tile, 15 cts.; total $12,283. Next 3 lowest bids: Brooks Constr. Co., Ft. Wayne, Ind., $12,928; Richard Shafer, Findlay, $13,169; H. S. Enck, Lima, $13,786. Engineer, W. K. Stringfellow, of Findlay.

★**Bexley, O.**—Contract for paving Parkview and Drexel Aves. with bitulithic awarded by Village Council to Cleveland Trinidad Paving Co., Cleveland, at $73,000.

Canal Dover, O.—Lowest bid opened by Bd. Pub. Service for paving N. Bever St. submitted by Midland Constr. Co., Lima, at $20,254.

★**Columbus, O.**—Contract for improving Smoky Row Road awarded by County Comrs. to Fritz-Rumer-Cooke-Grant Co., Columbus, at $15,221.

★**Dayton, O.**—Contracts for paving awarded by Bd. Pub. Service (bids opened June 1) as follows: Norman Ave., Longworth and Wyoming Sts., to Bigler Bros., Miamisburg, at $11,977, $6,990 and $14,896, respectively; W. 3d St., to W. J. Kernan & Co., Dayton, $13,820; Summers St., to Clifton Hollihan, Dayton, at $14,690. F. O. Eichelberger, City Engr.

Dayton, O.—Following are lowest bids opened for paving: Summers St., Clifton Hoolihan, $14,690; Wyoming and Longworth Sts. and Norman Ave., Bigler Bros., at $19,896, $6,999, and $11,997, respectively.

★**Mt. Victory, O.**—Contract for 6500 sq. yds. brick paving awarded to Brewer, Tomlinson & Brewer, Chillicothe, at $14,-300. Engineers, Smith & Boulay Co., Nasby Bldg., Toledo.

★**Youngstown, O.**—Contracts for paving with brick awarded by Bd. Control as follows: Powersdale Ave. to Chas. Harris, $10,185, and Blaine Ave., F. Serafino, $12,266.

★**Auburn, Ind.**—Contract for constructing Butler-Jackson Township line road, De Kalk County, awarded to Davenport & McReynold, Kokomo, Ind., at $19,600.

Gary, Ind.—Lowest bid opened for improving Massachusetts St. submitted by M. D. Heiny, Gary, as follows: 4001 sq. yds. macadam, 75 cts.; 1900 sq. yds. concrete sidewalk, 95 cts.; 1800 lin. ft. 6 x 22 in. curb, 35 cts.; 5989 cu. yds. grading, 25 cts.; 40 lin. ft. approach, 20 cts.; total $6,943.

★**Indianapolis, Ind.**—Contract for paving Parkway Boule. with bituminous macadam awarded by Bd. Pub. Wks. to American Constr. Co., St. Louis, Mo., at $3.20 per lin. ft. on each side of street, and $25,000 for street intersections.

★Contract for paving E. New York St. with asphalt awarded by Bd. Pub. Wks. to Union Asphalt Constr. Co. at $10,297.

★**East St. Louis, Ill.**—Contract for building concrete and macadam road from city limits of East St. Louis to St. Clair county line awarded to H. H. Hall Constr. Co., East St. Louis, at $16,900 per mile.

Illinois.—Following lowest bids opened June 9 by State Highway Comn., Springfield (Wm. W. Marr, Engr.), for State aid road work:

Union County, macadam, Sect. A, 2200 ft.: Meyer & Thomas Co., E. St. Louis, $3,050.

Bond County, brick, Sect. B, 600 ft.: Renkel Constr. Co., Maplewood, Mo., $1,250.

Livingston County, brick, Sect. B, 2800 ft.: John E. Bretz, Springfield, $5,340.

Kane County, concrete, Sect. C, 2700 ft.: Thos. Cutler & Co., Gary, Ind., $3,980.

★**Milwaukee, Wis.**—Contract awarded by County Comrs. June 7 for 28,230 sq. yds. concrete paving to Jensen-Jensen Co., Chamber of Commerce Bldg., Chicago, Ill., as follows: 12,200 cu. yds. excav., 45 cts.; 28,230 sq. yds. concrete paving (armored joints), 57 cts.; 145 cu. yds. concrete culverts, $9; total $22,886. (County to furnish cement.) H. L. Kneiling, County Highway Comr.

★Contract for about 31,627 sq. yds. asphalt pavements awarded by Dept. Public Wks. June 10, as follows: 24th and Home Aves. and Pearl St. to White Constr. Co., Milwaukee, Bi Mount Boule., Washington Boule. north, 27th St., 12th Sts. to Badger Constr. Co., Railway Exchange Bldg., Island Ave., 27th St., to F. P. Coughlin.

★**Des Moines, Ia.**—Contracts for paving awarded by city as follows: Polk Boule. with bitulithic, at $1.99; 20th St. with brick, Wagner Co., $1.85, and Laurel St. with asphalt, to Des Moines Asphalt Co., Des Moines, at $1.64 per sq. yd.

★**Grinnell, Ia.**—Contract for paving 93,-000 sq. yd. with bitulithic in Grinnell awarded to Wm. Horrabin, Iowa City, at $1.93 per sq. yd.

Duluth, Minn.—Following are lowest bids opened by Bd. Pub. Wks. for paving Commonwealth Ave.; with brick, Rogers & McLean, $38,728; E. W. Coons Co., $39,335; with bitulithic, D. H. Clough & Co., $37,308 and E. W. Coons Co., $38,191.

Mankato, Minn.—Lowest bid opened by City Council for paving submitted by Widell Co., Mankato (a) brick, (b) concrete, (c) tramarack creosoted block (price given per sq. yd.), South, N. Front and Main Sts. with (a), $1.27; 2d and Washington Sts. (b), $1.24; (c) $2.28, and South and N. Front Sts. (a) $2.05.

★**Anaconda, Mont.**—Contract for paving with asphaltic concrete on rock base Park Ave. and Main St. awarded by City Council to Clifton & Applegate at $27,609.

★**Dallas, Tex.**—Contracts for paving awarded by city as follows: Oak Lawn, Caddo and Sycamore Sts. to Uvalde Rock Asphalt Co., at $69,381; with concrete, Bishop St., to Levy & Levy, at $38,557, and Bellevue St. to Texas Bitulithic Co., Dallas, at $22,607.

McAlester, Okla. — Following bids opened by City Council for paving: 3d St., McEachin & McEachin, $12,350, and John W. Rooks, McAlester, $13,593.

Ft. Collins, Colo.—Lowest bid opened by City Comn, for constructing 3 miles Fall River Rd. submitted by F. C. Dreher Constr. Co., Denver, at $16,255.

★**Castle Rock, Wash.**—Contract awarded by Town Council for about 9800 sq. yds. concrete pavt., in Local Improv. Dist. No. 5, to Albers & Son, Chehalis, at $12,092.

★**Mt. Vernon, Wash.**—Contract awarded by County Comrs. for improving 2½ miles Montborn - McMurray Road to Quigg Constr. Co., Seattle, at $11,285. Next 3 lowest bids: M. E. Norris, Burlington, $12,233; J. Bartl & Son, Montborn, $13,376; H. L. Goerig, Seattle, $13,947. A. L. Strong, Co. Engr.

★**Port Townsend, Wash.**—Contract for constructing 3 miles of Jefferson-Clallam Rd. awarded by County Comrs., June 2, to Ferch & Gass, White Bldg., Seattle, at $10,000.

★**Seattle, Wash.**—Contract awarded by County Comrs. (Byron Phelps, Clk.) for constructing D. C. Mitchell Road to Sheppard & Cresman, Hinckley Bldg., Seattle, at $15,262. Other bids: Horrocks Constr. Co., Seattle, $16,440; M. P. Zindorf, Seattle, $16,724; West Coast Constr. Co., Seattle, $16,920. Arthur P. Denton, Co. Engr.

Following are 3 lowest bids opened by Bd. Pub. Wks., June 4, for paving 10th Ave.: F. McLellan, Globe Blk., Seattle, $204,687; T. Ryan, Lowman Bldg., $207,-127; and Jahn Contr. Co., Pioneer Bldg., $208,434.

★Contracts for paving awarded by Bd. Pub. Wks. as follows: 10th Ave., with brick, about 55,000 sq. yd., to F. McLellan, Globe Bldg., at $204,687, and 8th Ave., W., with Wilkenson sandstone, to Jahn Contr. Co., Pioneer Blk., at $29,530.

★**Spokane, Wash.**—Contract awarded by Co. Comrs. for paving Rockford and Waverly highways to Ambrose-Burdsall Co., Portland, Ore., at following bid: 113,396 cu. yd. common excav., 21 cts.; 15,000 cu. yd. rock excav., 90 cts.; 160,000 sta. yd. overhaul, 1¼ cts; 3700 lin. ft. culvert pipe 8, 12, 18 and 24-in., 75 cts., 85 cts., $1.20, and $1.55; 520 cu. yd. concrete, plain, $12; 280 cu. yd. concrete, reinforced, $15; 108,-100 sq. yd. pavt., 95 cts.; total, $165,500. C. A. McClung, Deputy Co Engr.

Washington.—Following 4 lowest bids opened June 1 by State Highway Comn. at Olympia for work on Pacific Highway from Toledo South: Andrew & Harrer, Portland, Ore., $19,585 (awarded contract); Sloane Bros., Seattle, $19,796; M. P. Zindorf, Alaska Bldg., Seattle, Wash., $20,110; Cochran, Nutting & Co., St. Johns, $20,493.

★Unit prices of Andrew & Harrer, successful bidders:

38,160 cu. yds. excav., inc. haul of 400 ft.	$0.26
22,800 cu. yds. overhaul on above material, per ea. 100 ft.	0.02
21.1 acres clearing	80.00
28.2 acres grubbing	140.00
25.0 cu. yds. riprap hand placed	4.00
9.0 cu. yds. concrete, 1st Class	16.50
54.0 cu. yds. concrete, 2d Class	15.50
1,280 lbs. steel reinforcing bars in place	0.05
9.0 M ft. timber and plank, incl. spikes and bolts	28.00
594 lin. ft. plain concrete pipe in place, 12-in. diam.	1.25
246 lin. ft. plain concrete pipe in place, 18-in. diam.	2.75
68 lin. ft. plain concrete pipe in place, 24-in. diam.	4.25
84 lin. ft. plain concrete pipe in place, 36-in. diam.	5.50

Sausalito, Cal.—Following 3 lowest bids opened June 7 by Town Trus. (Leonard L. Hohl, Town Engr.) for paving—(a) bituminous brick, (b) vitr. brick: Clarke & Henery, Stockton, (a) $20,489, (b) $20,-985 (awarded contract on vitr. brick); Eaton & Smith, San Francisco, (a) $21,-168, (b) $22,705; Munson & Sons, Stockton, (a) $21,504, (b) $22,371.

★**Ojibway, Ont.**—Contract for paving 3¼ miles on Main St. with concrete awarded to John DeWhirst, Woodslee, at about $120,000.

★**Washington.**—Following are unit prices of 4 lowest bids opened May 24 by State Highway Comrs. at Olympia (Wm. R. Roy, Chmn.) for paving Sunset Highway from Rocklyn to Creston: (a) Mohr Constr. Co., Waterville, $41,479 (awarded contract); (b) General Constr. Co., Spokane, $48,214; (c) Sloane Bros., Seattle, $44,299; (d) Clarkson Chindahl Co., Spokane, $48,636.

	*(a)	(b)	(c)	(d)
92,530 cu. yds. common excav., inc. haul of 400 ft.	$0.19	$0.23	$0.22	$0.19
25,900 cu. yds. solid rock excav., inc. haul of 400 ft.	0.85	0.96	0.80	1.10
3.0 acres clearing	8.00	35.00	40.00	30.00
14 cu. yds. riprap, hand placed	1.00	1.75	2.00	2.00
102 cu. yds. rubble masonry	6.00	4.00	8.00	7.00
35.5 cu. yds. concrete, 1st Class	10.00	12.00	15.00	13.00
2,750 lbs. steel reinforcing bars in place	0.04	0.06	0.06	0.05
168 lin. ft. plain concrete pipe in place, 12 in.	0.80	0.85	1.20	1.00
604 lin. ft. plain concrete pipe in place, 18 in.	1.05	1.32	2.25	1.60

STREET CLEANING AND GARBAGE DISPOSAL

PROPOSED WORK.

Marshalltown, Ia.—City considers buying street cleaning machine. W. H. Steiner, City Engr.

Houston, Tex.—City will probably install 3 small incinerators for burning garbage. E. E. Sands, City Engr.

BIDS DESIRED.

Roanoke, Va.—Until June 29 by P. H. Tucker, City Clk., for motor street-sweeping machines. F. L. Gibboney, City Engr.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Sheboygan, Wis.**—Contract awarded by city to C. E. Hunter Co., Springfield, Ill., to construct garbage disposal plant, at $8,785.

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS

PROPOSED WORK.

Wharf—Boston, Mass.—Directors of Port of Boston (F. M. Hodgdon, Ch. Engr.) granted following permits: To Darrow-Mann Co. to build pile and solid wharf and coal dock on Mystic River; and to W. M. W. Spring and Terminal Wharf & Railroad Storagehouse Co. (H. H. Wiggin, Treas.) for a large coal wharf in Mystic River.

Wharf—Augusta, Ga.—Contract will soon be let for construction of new municipal wharf and a concrete warehouse to cost $50,000. Address Nisbet Wingfield, Ch. Engr., River and Canal Comn.

Power Plant—Birmingham, Ala.—Bd. of Comrs. directed City Engineer to report cost of water power plant on Warrior River Lock 17, for generation, transmission and distribution of light and power in city. Julian Kendrick, City Engr.

Wharf Site Bonds—Pascagoula, Miss.—$17,000 wharf site bonds to be sold July 6 by L. D. Herrick, City Clk.

Drainage—Wickliffe, Ky.—Surveys and plans reported completed, and work will soon commence on drainage of Little Humphries Creek land in Ballard County; cost about $35,000.

Power Plant—Fremont, O.—Receivers of Sandusky River Power Co. filed application with Pub. Utilities Comn. to issue bonds preparatory to reorganizing company and adding $500,000 auxiliary steam power house to water power electric plant now in operation.

Wharf—New Albany, Ind.—S. T. Mann, City Engr., reported to have completed plans for wharf at Pearl and State Sts.

Piers, Etc.—Evanston, Ill.—Citizens reported to have voted $50,000 bonds to improve shore line from Northwestern University ground south to southern limits of city, including erection of piers and improving beach.

Ditch—Waterville, Minn.—County Comrs. reported to have authorized issue of $10,000 bonds for constructing county ditch No. 40.

Huron, S. D.—Reported Huron & Northwestern Railroad Co. will this year build north from Huron to Hankinson.

Irrigation—Billings, Mont.—Billings Land & Irrigation Co. reported to have completed plans for converting Hollings Lake, 3 miles north of city, into a reservoir for a reserve supply of water for irrigation purposes.

Power Plant—Kansas City, Mo.—Big Niangua Hydro Electric Co., Kansas City, to build hydro-electric plant on Big Niangua River; estimated cost, $2,500,000. Construction includes reinforced concrete dam 1500 ft. long and 160 ft. high to develop 30,000 hp. to be delivered over a transmission line 120 miles long.

Harbor—Houston, Tex.—See "Sewerage and Sewage Disposal."

Power Development—Los Angeles, Cal.—City authorized to issue $6,500,000 bonds voted about a year ago to develop and distribute electric power from Los Angeles aqueduct, by recent decision of Supreme Court.

Pier Work, Etc.—San Francisco, Cal.—Local press reports state contract about to be let by Harbor Comrs. for constructing side aprons for slips Nos. 6, 7 and 8; also extension of Pier 20.

Power Plant—Price, Utah.—J. H. Manson, of Price, writes with regard to proposed plant on Price River, that bids for construction will probably be received in October. It is proposed to use water the year around taking care of any flexibility in water with high speed steam turbines. Plant will be located in one of the coal districts of West.

BIDS DESIRED.

State Canal Sub-bids—Mechanicsville, N. Y.—Sub-bids desired by Jas. Stewart & Co., Inc., 30 Church St., New York, for constructing approach wall to Lock No. 3, Mechanicsville, Barge Canal Contract No. 72A, advertised in Engineering Record.

Dredging—New York, N. Y.—Until June 25 by R. A. C. Smith, Comr. Docks & Ferries, for dredging for Riverside Park Improvement, from W. 87th to W. 93d Sts., North River, Manhattan.

Dredging—New York, N. Y.—Until July 15 by U. S. Engineer's Office, Room 802, Army Bldg., 39 Whitehall St., for dredging Hackensack River, N. J., and channel south of Shooters Island, N. Y. and N. J., advertised in Engineering Record.

Riprap—Philadelphia, Pa.—Until July 8 by U. S. Engineer Office to furnish and place riprap in Delaware River at Artificial Island, advertised in Engineering Record.

Dredging — Philadelphia, Pa. — Until July 12 by John Meigs, Dir. Dept. Wharves, Docks and Ferries, 555 Bourse Bldg., for dredging at Moyamensing Piers, Delaware River, at foot of McKean St.

Air Compressor Plant—Pittsburgh, Pa.—Until June 30 by U. S. Engineer, Pittsburgh, to furnish and install water power driven air compressor plant at Dam No. 10, Ohio River, advertised in Engineering Record.

Drainage—Salisbury, N. C.—Until June 21 by Drainage Comrs. (G. A. Brown, Chmn., Box 564), for removing 331,591 yd. material and other work necessary to drain Withrow's Creek. Estimated cost, $21,553.

Steel Gates—Wilmington, N. C.—Until July 21 by U. S. Engineer's Office, Wilmington, for steel lock gates, advertised in Engineering Record.

Timber Wharf—Charleston, S. C.—Until July 15 by Lighthouse Inspector to construct creosoted timber wharf at site of new lighthouse depot on Ashley River, Charleston.

Levee Work—New Orleans, La.—Until June 22 by Levee Comrs., Orleans Levee Dist., Suite 201 New Orleans Court Bldg. (C. J. Donner, Secy.) for following levee work on Mississippi River:

Southern Pacific R. R. Terminal to U. S. Naval Station, 5th Dist., right bank of river, new levee, 692 ft., approximately 11,720 cu. yd. earth.

Aurora Levee, 5th Dist., right bank of river, 5600 ft., 10,000 cu. yd. earthwork, 5600 lin. ft. sheet piling, about 336 M ft.; 30,000 sq. yd. reinforced concrete revetment or facing.

Upper Stanton, 5th Dist., right bank of river, river side enlargement, length 1913 lin. ft., 22,000 cu. yd. earth.

Filling in borrow pits, U. S. Government Depot to Lower End of Audubon Park, 6th Dist., left bank of river, length about 6036 lin. ft., 86,000 cu. yd. earth.

Retaining Wall—Cincinnati, O.—Until July 2 by Co. Comrs. (Albert Reinhardt, Clk.) to construct retaining wall in Loveland Village, Little Miami River Bridge, in Symmes Township, Specification 788.

Spillway on Dam—Middletown, O.—Until July 2 by John I. Miller, State Supt. Pub. Wks., Columbus, to build levee embankment, concrete culvert and repair concrete spillway, all on Umbenhauer farm at State Dam, north of Middletown.

Drainage District Work—Chicago, Ill.—Until June 24 by John McGillen, Clk. Sanitary Dist., Chicago, Room 700, 910 S. Michigan Ave., for excavating side slopes and constructing pile and timber protection on North Shore Channel of Sanitary Dist. in Evanston and Wilmette, approximately 150,000 cu. yds. excav., 9500 lin. ft. piles, 40 M ft. timber; also separate bids for excavating north bank of part of main channel of Sanitary Dist. in city of Chicago and Stickley and Lyons Townships, approximately 175,000 cu. yds. excav.

Ditch Work—Morris, Minn.—Until June 29 by C. R. Wollthan, Co. Aud., to dig and construct county Ditch No. 16, about 1073 yardage, and 35,307 ft. 6 to 24-in. tile.

Dredging and Dam—Beaumont, Tex.—Reported desired until June 28 by Beaumont Navigation Dist., for 120 ft. timber dam across Salt Bayou and 6000 ft. canal, requiring 22,000 cu. yds. dredging. Jas. F. Weed, Engr., Beaumont.

Ditches—Eagle Lake, Tex.—Reported desired until June 22, by F. C. Koons, Secy., Colo. County Drainage Dist. No. 1, for 16 miles drainage ditches with bridges and concrete culverts.

Irrigation Work—Grand Junction, Colo.—Until July 12 by U. S. Reclamation Service, Dept. Interior, Washington, D. C., to furnish chain shafts and chains for rolling crest of Grand River Diversion Dam, Grand Valley Project, Colo., advertised in Engineering Record.

Wharves—Portland, Ore.—Until July 12 by U. S. Engineer, 802 Couch Bldg., Portland, for enlarging and repairing receiving wharves and tramways and extending north and south jetties at mouth of Suislaw River, Ore., advertised in Engineering Record.

Irrigation Work—Goshen, Utah.—Until July 15 by U. S. Reclamation Service, Provo, about 50,000 cu. yds. canal excav., 8000 cu. yds. rolled embankment, 3000 cu. yds. excav. for structures, 950 cu. yds. reinforced concrete and 525,000 sq. ft. canal lining. Work near Goshen, on Tintic Branch, Denver & Rio Grande R.R.

Dredging and Ditching—Chatham, Ont.—Until June 26 by W. H. Wickens, Reeve Chatham Township, Scane Blk., to dredge and ditch Big Creek drain in Township of Chatham and Dover. Geo. A. McCubbin, Engr., Chatham.

Shed on Pier—Panama.—Until July 13 by Maj. F. C. Boggs, Corps Engrs., U. S. A., General Purchasing Office, Panama Canal, Washington, D. C., for structural steel and accessories for shed on Pier No. 7, Circular 937.

Dredging—Pearl Harbor, Hawaii.—Until July 31, by Bureau Yards and Docks, Navy Dept., Washington, D. C., for dredging about 72,000 cu. yds. at Naval Station, Pearl Harbor, Hawaii.

Dredger — Adelaide, Australia — Until Aug. 24 by South Australian Harbor Bd., Adelaide, a steel self propelling barge loading bucket dredger.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Dredging—Portland, Me.** — Contract awarded by Maj. F. A. Pope, Corps Engrs., U. S. A., for dredging Portland Harbor, to Coastwise Dredging Co., Norfolk, Va., 7.74 cts.; total cost, $28,532 (bids opened May 25).

★**Dam—Turners Falls, Mass.**—Contract reported awarded to Fredk. Ley & Co., Springfield, for completing dam of Turners Falls Power & Electric Co. Will have 6 flood gates, 7 x 8 ft., operated from a tunnel in dam.

★**Brooklyn, N. Y.**—Contract awarded by R. A. C. Smith, Comr. Docks, for building pier foot of 29th St., Brooklyn Boro. (bids opened June 11), to Henry Steers, Inc., 17 Battery Pl., New York, at $116,-148. Next 3 lowest bids: Stillman Delehanty Ferris Co., $122,984; Riverside Contr. Co., $125,648; Snare & Triest Co., $127,270.

★**Sea Wall Repair—Sandy Hook, N. J.**—Contract awarded by Col. Fred V. Abbot, Corps Engrs., U. S. A., New York, to Conger-Duncan Constr. Co., Inc., 17 Battery Pl., New York, to furnish and place riprap stone for repair and enlargement of sea wall south of U. S. lands at Sandy Hook, at $1.58 per ton.

★**Levee Work—Vicksburg, Miss.**—Contract for 660,000 cu. yds. levee enlargement of Lake Beulah levee (bids opened June 5) awarded by Third Mississippi River Dist. to Walter H. Dennison, 62 S. Front St., Memphis, Tenn., at 14.37 cts. per cu. yd.; total $94,842. Next 3 lowest bids—(a) per cu. yd., (b) total: Gibson, Hamilton & Co., De Soto Hotel, New Orleans, La., (a) 14¾ cts., (b) $96.800; W. T. & E. M. Lowrance & Co., Memphis, Tenn., (a) 15.95 cts., (b) $105,207; Roach, Stansell, Lowrance Bros. Co., Memphis, Tenn., (a) 16.4 cts., (b) $108,240.

★**Timber Cribs, Etc.—Harbor Beach, Mich.**—Contract to construct 2 timber cribs and replace with concrete, timber superstructure breakwater at Harbor Beach, awarded to Burk, Smith & Nelson, Muskegon, at $64,787 (bids opened May 20). Unit prices in Engineering Record of May 20.

★**Ditch—Elbow Lake, Minn.**—Contract for constructing Consolidated Judicial Ditch No. 2 awarded to John C. Haggart at $13,950 (bids opened June 11). C. M. Wilson, Co. Aud.

★**Ditch—Long Prairie, Minn.**—Contract reported awarded Wm. Tabery, Bertha, for constructing Ditch 25, mostly in Germania Township; about 23 miles long, inc. laterals.

★**Ditch—Aberdeen, S. D.**—Contract awarded by City Comrs. to H. C. Hansen, of Stratford, to build ditch along Moccasin Creek at 14 cts. per cu. yd.

Dikes—Kansas City, Mo.—Following are bids opened by Lieut.-Col. Herbert Deakyne, Cors Engrs., U. S. A., May 24 for dike improvement:

★Timber dike, 3 row, 5500 ft. on Missouri River, near Waverly, awarded to Kansas City Bridge Co., Kansas City, at $13.70 per lin. ft. Other bids: Marshall Rust, Pilot Grove, $13.85; Liest & Gifford, Kansas City, $14.35; J. W. McMurry Contr. Co., Kansas City, $14.50.

★Dike and revetment on Missouri River, near Waverly, awarded to Marshall Rust, Pilot Grove, as follows: 1000 ft. standard 3-row dike, $13.85 per ft.; 5000 ft. standard revetment, $8.55. Other bids—(a) dike, (b) revetment: Kansas City Bridge Co., (a) $13.95, (b) $9.40; Norton Bros. & Kennedy, Kansas City, (a) $14.60, (b) $11.23; De Witt & Shobe, Glasgow, (a) $14.48, (b) $11.48.

★**Irrigation Work — Saco, Mont.**—Contract awarded by U. S. Reclamation Service, Malta, for about 95,000 cu. yds. of canal excav., located about 10 miles from Saco, to Jas. O'Connor, of Dodson, at $15,615 (bids opened May 12).

★**Ferry Landing—Seattle, Wash.**—Contract to reconstruct West Seattle Ferry Landing awarded by Port of Seattle Comn. to J. A. McEachern Co., Seattle, at $7,424. (C. E. Remsberg, Secy.)

★**Stone for Jetty—Portland, Ore.**—Bids opened June 7 by Lieut.-Col. C. H. McKinstry, Corps Engrs., U. S. A., Portland, to furnish and deliver stone for jetty construction, mouth of Columbia River, Oregon and Washington, and the bid of Columbia Contract Co., Portland, has been recommended for award at $300,000, based on delivery of 300,000 tons.

★**Irrigation Work—Payson City, Utah.**—Contract awarded by U. S. Reclamation Service, Provo, for construction involving about 30,000 cu. yds. canal excavation and 3400 cu. yds. reinforced concrete, to Morrison-Knudson Co., Boise, Idaho, at $38,950 (bids opened May 19).

★**Valves — Roosevelt, Ariz.**—Contract awarded to Rosedale Fdry. & Machine Co., Pittsburgh, Pa., for 2 needle valve outlets for Roosevelt reservoir, Salt River project, at $6,240, f. o. b. cars, contractor's plant.

★**Dam — Marysville, N. B.**—Contract awarded to Ambursen Hydraulic Constr. Co., of Canada, Ltd., New Birks Bldg., Montreal, Que., for constructing 2 storage dams on Nashwaak River, near Marysville, for Edw. Partington Pulp & Paper Co., Ltd., of St. John.

ELECTRIC RAILWAYS

PROPOSED WORK.

Pottsville, Pa.—Eastern Pennsylvania R. R. Co. to build 2 miles track between Pottsville and St. Claire.

Beckley, W. Va.—Plans being considered for constructing electric railway from Fayette Station on Chesapeake & Ohio R.R. to Beckley, distance 35 miles. H. G. Scott, Charleston, is interested.

Cincinnati, O.—Plans being prepared for constructing extension to Cincinnati Traction Co.'s line to Bond Hill.

Columbus, O.—East Linden Electric Ry. Co. received franchise to construct 2 lines through northern section of Columbus.

Superior, Wis.—Plans being considered to build electric railway from Superior to Bayfield. L. E. Davis, Bayfield, said to be interested.

Wichita, Kan.—Plans being made by Arkansas Valley Interurban Ry. Co. to build extension to Salina and one to Winfield.

Houston, Tex. — Arrangements being made by Houston, Richmond & Western Traction Co. to build line from Houston to Richmond. E. Kennedy, Houston, is interested.

San Bernardino, Cal.—Plans being considered by Pacific Electric Ry. to extend line from San Bernardino to East Highland and Del Rosa.

Salt Lake City, Utah—Plans being considered by Salt Lake & Utah R. R. Co. to build extension of lines from 14th South St., Salt Lake City, through Hunter, Granger, Pleasant Green and other points, about 10 miles.

PRICES AND LETTINGS.

★*Indicates award of contract.*

Brooklyn, N. Y.—Lowest bids opened June 15 by Public Service Comn., 1st Dist., 154 Nassau St., New York, for constructing Sect. 1 of Route No. 29, part of Eastern Parkway Rapid Transit R. R. (Nostrand Ave. branch), Boro. Brooklyn, submitted by Newman & Carey, 215 Montague St., Brooklyn, at approximately $2,075,000.

★**Radford, Va.**—Contract for constructing Radford-Willis Southern Ry. from Radford to Willis awarded to Williams Bros. Constr. Co., Roanoke.

RAILROADS

PROPOSED WORK.

Barberton, O.—City asked Common Pleas Court for permission to eliminate grade crossings at Tuscarawas and Robinson Aves. and Hudson St. across B. & O., Pennsylvania and Belt Line Railroads.

Gila Bend, Ark.—Tucson, Cornelia & Gila Bend Railroad Co. reported to have petitioned State Corporation Comn. for permission to issue $675,000 bonds and a like amount of capital stock to cover cost of constructing company's line from Gila Bend to Ajo. Proposed road will cost $30,000 per mile.

Portland, Ore.—Reported that grade crossings are to be eliminated along line of Oregon, Washington R.R. & Navigation Co. between head of Sullivan's Gulch and city limits. J. R. Holman, Ch. Engr., Portland.

PRICES AND LETTINGS.

★*Indicates award of contract.*

Buffalo, N. Y.—Following reported to be 4 lowest bids opened June 5, by Grade Crossing Comn., for elimination of grade crossings at Bailey Ave. to be of concrete construction: Lathrop-Shea & Henwood Co., 428 Ellicott Sq., Buffalo, $152,267; Jos. F. Stabell Contr. Co., $154,652; John Johnson Constr. Co., $158,640; Eastern Concrete Steel Co., $169,331.

★**Sault Ste. Marie, Mich.**—Contract awarded by Lake Huron & Northern Ontario R. R. Co. to National Eng. Co., Marshall Bldg., Cleveland, O., to construct new line 300 miles in length from Sault Ste. Marie to the Grand Trunk Pacific line half way between Cochrane and Hearst. Cost about $24,000,000.

PUBLIC BUILDINGS AND SCHOOLS

PROPOSED WORK.

Boston, Mass.—Additional gifts to Massachusetts Inst. of Technology include $250,000 for initial fund for dormitories; also $225,000 for building for Mining Department.

Bridgeport, Conn.—Sub-Committee of Bd. Educ. in favor of erecting addition to Bridgeport Normal School on Clinton Ave.

Windsor, Conn.—Plans being prepared for second dormitory at Loomis Inst.

Buffalo, N. Y.—School Com. of Bd. Aldermen has voted in favor of a 16-room addition to Lincoln School 44, on Bway. and Person St.

Bayonne, N. J.—No bids opened June 4 by County Parental Home Trus., Jersey City, for erecting county parental school here; lack of quorum. New date to be set.

Newark, N. J.—Reported Bd. Educ. plans improvements costing $946,000.

Philadelphia, Pa.—Plans soon to be asked for Carson College for Orphan Girls to be erected near Chestnut Hill. $4,000,000 was bequeathed by the late Robt. N. Carson for building and endowment. John Gribbel, 1513 Race St., Chmn. Bd. Trus.

Philadelphia, Pa.—Plans being prepared by Horace Cook, Supt. Bldgs., for 33-room school for East Germantown Dist., at 65th Ave. and Lime Kiln Pike; cost $350,000. Address Bd. Educ.

Philadelphia, Pa.—Bd. Public Recreation having plans prepared for 1 and 2-story recreation building to be erected at McMahon and Price Sts., Germantown; cost $35,000.

Middlebury, Vt.—A 5-story marble and granite men's dormitory to be erected at Middlebury College; cost $150,000.

Mount Airy, N. C.—Citizens voted $25,000 school improvement bonds.

Greenville, S. C.—School Bd. selected J. E. Sirrine, Greenville, to prepare plans for $45,000 high school.

Sumter, S. C.—Bonds for $50,000 for school improvements to be sold July 10 by D. M. Blanding, Secy. School Bd. Educ.

Atlanta, Ga.—Bd. Educ. to make improvements to schools costing $85,000.

Macon, Ga.—County Bd. Educ. appropriated $100,000 school improvement bonds, including erection and maintenance of Vineville School and enlargement of South and East Macon Schools.

Marianna, Fla.—House of Representatives, Tallahassee, passed bill appropriating $60,000 for buildings at Marianna Reform School.

Pensacola, Fla.—Citizens voted $20,000 bonds June 7 to erect building at water works; also $10,000 for a brick truck house.

Winter Haven, Fla.—School bonds for $25,000 sold.

Nashville, Tenn.—City Bd. Educ. has selected architects to prepare plans for the following schools: Hart & Gardner, Stahlman Bldg., for Clemons School, cost $45,000; Marr & Holman, Stahlman Bldg., Elliott School, $45,000; Edw. E. Daugherty, West Nashville School, $27,000; Chas. Ferguson, Arcade, Pearl Negro High School, $45,000.

Henderson, Ky.—City Council has appropriated $25,000 for a hospital. H. C. Mason, Chmn. Bldg. Com.

Canton, O.—Bonds for $147,000 school improvements sold.

Charlestown, O.—Bonds for $25,000 for school improvements will be sold July 1 by R. A. Sanford, Clk. Charlestown Township Rural School Dist., R. F. D. No. 1, Ravenna.

Dayton, O.—Plans to be prepared by Pretzinger & Musselman, Dayton, for new $150,000 school.

Malvern, O.—Bonds for $35,000 for school improvements will be sold June 25 by Village Councvil. L. D. S. Klotz, Mayor.

Marysville, O.—Bonds for $65,000 school improvements sold by Bd. Educ. Union Township.

New Paris, O.—Clerk Bd. Educ. writes contract will be let in 4 or 6 weeks for 2-story brick school 115 x 65 ft.; cost, $50,000. Frank L. Packard, Archt., Columbus.

Richwood, O.—Citizens voted $39,000 bonds for new school building.

Springfield, O.—Mad River School bonds for $33,000 sold.

Woodfield, O.—Bonds for $50,000 for high school sold.

Columbus, Ind.—Plans being prepared by A. D. Bohlan & Son, Indianapolis, for 3-story concrete and steel hospital for Bartholomew County; cost $75,000, with $12,000 additional for equipment.

Evansville, Ind.—School bonds for $150,000 sold.

Marquette, Mich.—Citizens voted $140,000 school bonds.

Peoria, Ill.—Citizens June 7 voted $100,000 bonds to erect county jail.

Forest City, Ia.—Citizens voted $80,000 school bonds.

Ireton, Ia.—Citizens voted $30,000 school bonds.

Mason City, Ia.—Citizens voted $300,000 high school bonds.

Monroe, Ia.—Citizens voted $36,000 school bonds.

Redwood Falls, Minn.—All bids recently submitted for high school have been rejected. Address School Bd.

St. Cloud, Minn.—Plans selected by Bd. Educ. for $150,000 high school.

Hays, Kan.—Plans being prepared by C. A. Smith, Salina, for $100,000 hospital.

La Crosse, Kan.—Citizens voted $30,000 high school bonds.

Mandan, N. D.—Plans of J. Baecher, of St. Paul, Minn., accepted for 2-story addition to court house and jail; cost $25,000. Contract soon to be let by Co. Comrs.

Anaconda, Mont.—School Bd. intends erecting annex to high school; cost $100,000; also 8-room addition to Emerson School; cost $50,000.

Helena, Mont.—Reported bonds for $100,000 will be sold June 21 by State Bd. of Examiners to improve State Hospital for Insane and State Tuberculosis Sanitarium.

Temple, Tex.—Citizens voted $30,000 bonds for Fire Department buildings.

Bellingham, Wash. — Citizens voted $95,000 bonds for addition to North Side high school.

Monmouth, Ore.—Plans being prepared by John V. Bennes, Chamber of Commerce Bldg., Portland, for $50,000 State normal school. R. G. Starkweather, Milwaukie, Ore., member of committee in charge.

Seaside, Ore.—Union High School costing $37,000 contemplated. Address School Board

Tillamook, Ore.—Citizens voted $30,000 city hall bonds.

Duncan, Ariz.—B. R. Lanneau, Clk. School Bd., writes contract about to be let for proposed high school, to be 2 stories, 68 x 116 ft., and cost $27,000. Architects, Lesher & Kibbly, of Phoenix.

Florence, Ariz. — High school bonds amounting to $75,000 sold.

Phoenix, Ariz.—Bd. Control soon to let contract for erecting female ward at State Asylum for Insane; also contract for steel tank and tower at the Inst.

BIDS DESIRED.

Maine.—Until June 29 by Layson Smith, Secy. Bd. Normal School Trus., Augusta, care of the Architects, for following: Brick kitchen wing at Machias. Gibbs & Pulsifer, Archts., Lewiston. Dormitory for Madawaska Training School at Ft. Kent. Astle & Page, Archts., Caribou, Me.

Southbridge, Mass.—Reported desired until June 23 by School Com. (F. E. Corbin, Secy.) for erecting high school. Peabody & Stearns, Archts., 53 State St., Boston.

New Haven, Conn.—Reported desired until June 26 by Scopes & Feustmann, Archts., 37 E. 28th St., New York, for erecting for Tuberculosis Sanitarium 3-story administration building, east and west wards, nurses' home, and east and west dormitories, all 2-story, and 1-story power house.

Ft. Terry, N. Y.—Until June 23, by Consulting Q. M., Ft. H. G. Wright, for plumbing and hot water heating installation in hospital annex, Ft. Terry, advertised in Engineering Record.

Lockport, N. Y.—Reported desired until June 27 by Co. Comrs. for erecting addition to jail and county clerk's office; cost, $90,000. C. R. Phelps, Archt., Gluck Bldg., Niagara Falls.

Orchard, N. Y.—Reported desired by Robt. North, Archt. Prudential Bldg., Buffalo, for erecting 3-story and basement, 16-room brick and steel school. M. Strebel, Pres. Bd. Educ.

Middletown, N. Y.—Until June 29 by State Hospital Comn., Capitol, Albany (E. S. Elwood, Secy.) for alterations and additions to power house at Middletown State Homeopathic Hospital, advertised in Engineering Record. Lewis F. Pilcher, State Archt., Albany.

Syracuse, N. Y.—Until June 30 new bids for erecting the vocational school. Address Bd. Comrs., Vocational High School.

Oradell, N. J.—Until June 21 by Hospital Bldg. Com., Co. Bd. Chosen Freeholders, Hackensack (Chas. N. Cumberland, Chmn.), for erecting isolation hospital at Poor Farm, Oradell. John J. Ferry, Archt., Englewood.

Bath, Pa.—Until June 28 by Jas. K. Worman, Secy. School Dist., for erecting 2-story and basement school on Washington and Cemetery Sts. A. W. Leh, Archt., South Bethlehem.

Charleroi, Pa.—Until June 22 by Thos. M. Faddis, Secy. Bd. Educ., for erecting addition and making alterations to high school. And. P. Cooper, Archt., 704 First Natl. Bank Bldg., Uniontown.

Parkesburg, Pa. — Reported desired June 23 by Bd. Educ. for erecting 2-story and basement brick and stone 55 x 63 ft. school. Clyde Adams, Archt., Philadelphia.

Pittsburgh, Pa.—Until June 22 by Hyatt M. Cribbs, Co. Compt., for rough excavation work entering into the construction and completion of new City and County Building for city of Pittsburgh and County of Allegheny at Grant and Diamond Sts.; estimated cost, $60,000; yardage, 26,000 cu. yd. Edw. B. Lee and Palmer. Hornbostel & Jones, Assoc. Archts., 345 4th Ave., Pittsburgh.

Stoneboro, Pa.—Until June 24 by Bd. Educ. (Ralph Hanford, Secy.) for erecting 8-room school. C. F. Owsley, Archt., Mahoning Bank Bldg., Youngstown.

Brandywine, Md.—Until July 7 by Bldg. Com. (W. W. Early, Secy.), for erecting brick or concrete school. Hunter & Bell, Archts., Southern Bldg., 15th and H Sts. N. W., Washington, D. C.

Washington, D. C.—Until June 30 by Chief Clerk, Engineering Dept., District Bldg., for erecting high school No. 174; it will be 3 stories, brick with concrete floors, and cost $400,000. Heating by Plenum or fan system, steam driven; plumbing and radial brick stack (separate contract); also electric light, clocks and bells and electric exhaust fans in attic. Snowden Ashford, Archt., District Bldg.

Ft. Myer, Va.—Until June 29 by Quartermaster, for repairs to hospital and hospital stewards' quarters at Ft. Myer, advertised in Engineering Record.

Cedartown, Ga.—Reported desired until July 1 by School Comrs. for erecting brick, stone and terra cotta high school. J. J. Baldwin, Archt., Anderson, S. C.

Collinston, La.—Until June 22 by Bd. Directors, Public Schools, Bastrop, for erecting 2-story brick school here. J. W. Smith, Archt., Monroe.

New Orleans, La.—Until July 21 by Bd. Comrs. Port New Orleans (Ernest M. Loeb, Pres.) for constructing reinforced concrete buildings for cotton warehouses and terminal, advertised in Engineering Record. Ford, Bacon & Davis, Engrs., 921 Canal St.

Brookville, O.—Until July 2 by G. M. Grau, Clk. Bd. Educ., for erecting school. F. J. Hughes & Co., Archts., U. B. Bldg. Annex, Dayton.

Cleveland, O.—Until June 23 by Comr. Purchase & Supplies for erecting pavilion in Rockefeller Park, including masonry, carpentry, marble, heating, plumbing, etc. Until July 9 by Carl Lorenz, Secy. Cleveland Public Library Bd. for erecting library on E. 79th St. north Superior Ave. Wm. Robert Powell, Archt., 1106 Hippodrome Bldg.

Fultonham, O.—Until July 8 by Bd. Educ. (L. G. Harkness, Clk.), for erecting school. C. E. Handshy, Archt., Zanesville.

Hanover, O.—Until July 3 by H. D. Evans, Clk. Hanover Township, Rural School Dist. Hanover, for erecting brick grade and high school. Separate bids for heating and plumbing. F. S. Rusk & Cree Sheets, Archts., 145 N. High St., Columbus.

Marion, O.—Reported desired until June 30 by Bd. Educ. for erecting brick and stone school; separate bids on heating, plumbing, etc. Howard & Merriam, Archts., 8 E. Broad St., Columbus.

McArthur, O.—Reported desired until June 26 by High School Com. of Wilkesville Joint High School Dist. (J. A. Newson, Clk.) for erecting brick high school; separate bids for heating. Chas. F. Wright, Archt., New Natl. Bank Bldg., Columbus.

Swanton, O.—Until July 10 by Bd. Educ. Swanton Township (Wm. Roop, Clk.), for erecting school. Roman Havlicek, Archt., 1119 Nicholas Bldg., Toledo.

Bloomington, Ind. — Reported desired until June 21 by Bd. Educ. (W. E. Hottel, Secy.) for erecting 2-story and basement tile and stone school.

Indianapolis, Ind. — Reported desired until July 7 by County Comrs. for erecting administration building at poor farm. W. T. Patten, Co. Aud.

Reported desired until June 29 by J. E. Cleland, Business Dir. Bd. Educ., for erecting addition to grade school No. 12. Snider & Rotz, Archt., 1004 Merchants Bank Bldg.

Winchester, Ind.—Until June 30 by Trus. Library Bd. for erecting brick library.

Marquette, Mich.—Until June 28 by Jas. D. Reilly, Secy. Bd. Educ., for a fireproof high school, cost $110,000.

Sault Ste. Marie, Mich.—Until June 30 by Bd. Educ. (Jas. T. Moore, Secy.) for erecting High School, including ventilation, heating and plumbing. D. Chubb, Archt., 109 N. Dearborn St., Chicago, Ill., and Edw. Demar, Assoc. Archt., Adams Blk., Sault Ste. Marie.

Armstrong, Ia.—Reported desired June 21 (extension of date) by Wm. Stuart, Pres. Independent School Dist., for erecting 2-story grade and high school. Alban & Lockhart, Archts., 347 Endicott Bldg., St. Paul, Minn.

Cherokee, Ia.—Until July 6 by Wm. Shardlow, Secy. Bd. Directors, Independent School Dist. of New Cherokee, for erecting a high school.

Ireton, Ia.—Reported desired until July 2 by School Bd. (L. S. Satterlee, Secy.) for erecting brick school; cost $30,000.

Kellerton, Ia.—Reported desired until July 7 by A. Smith, Secy. Bd. Educ., for erecting 2-story and basement school; cost, $40,000. Trunk & Gordon, Archts., Donnell Court Bldg., St. Joseph, Mo.

Madrid, Ia.—By C. Fred Carlson, Madrid, for erecting a school.

Faribault, Minn.—Until June 22 by State Bd. Control, St. Paul, for alterations and additions to Superintendent's residence at State School for Feeble Minded. C. H. Johnston, Archt., Capital Bank Bldg., St. Paul.

Kerrick, Minn.—Until June 21 by R. Friedil, Clk. Bd. School Dist. No. 88, for erecting 2-story brick school. Holstad & Sullivan, Archts., 410 Paladio Bldg., Duluth.

Minneapolis, Minn.—Until June 22 by Bd. Educ. (Geo. F. Womrath, Bus. Supt.) for general work for alterations and additions to the South High School, including heating, ventilating, etc. Stebbins & Haxby, Archts., Audubon Bldg.

Morton, Minn.—Until June 23 by School Bd. Independent School Dist. No. 55 (M. Holden, Pres.) for additions to the high school.

Odessa, Minn.—Until June 24 by Bd. Educ. of School Dist. No. 24 (H. H. Reindl, Clk.) for erecting high school, including heating, plumbing, etc. Edwins & Edwins, Archts., Northwestern Bldg., Minneapolis.

Medicine Lodge, Kan.—Reported desired until June 26 by Bd. Educ. (T. L. Lindley, Pres.) for erecting 2-story and basement school; cost, $25,000. Crowell & Van Meter, Archts., Wichita.

Amidon, N. D.—Reported desired until July 5 by J. S. Hume, Co. Aud., for erecting court house.

Manning, N. D.—Reported desired until June 29 by Co. Comrs. for erecting court house. C. H. Gutman, Co. Aud.

Goodwin, S. D.—Until June 28 by J. P. Anthony, Clk. School Bd., for erecting 1-story brick school. Geo. Issenhuth, Archt., Huron, S. D.

Hosmer, S. D.—Reported desired until June 29 by Clerk School Bd. for erecting a 2-story brick school. Geo. Issenhuth, Archt., Huron.

Milbank, S. D.—Until July 2 by E. M. Harper, County Auditor, for erecting 3-story stone fireproof court house. C. E. Bell, Archt., Security Bldg., Minneapolis, Minn.

Butte, Mont.—Reported desired until June 27 by School Bd. for erecting high school annex. Wilson & Cutting, Archts., Butte.

Crow Agency, Mont.—Until June 30 by Cato Sells, Comr. Indian Affairs, Washington, D. C., for erecting brick school and heating system at Crow School, Mont. For further information address Superintendent of School, Crow Agency.

Poplar, Mont.—Until June 28 by Bd. Trus. School Dist. No. 9 (H. C. Walker, Clk.) for erecting brick school. Haxby & Gilespie, Archts., Fargo, N. D.

Wolf Point, Mont.—Until June 29 by Chas. E. Roblie, Chmn. Bd. Trus. School Dist. 45, for erecting a brick school. Haxby & Gillespie, Archts., Fargo, N. D.

Douglas, Wyo.—Reported desired until July 6 by Co. Comrs. (J. C. Amspoker, Clk.) for erecting jail and sheriff's residence; separate bids for plumbing, heating and cell work. Wm. N. Bowman, Archt., Central Savings Bank Bldg., Denver, Colo.

Torrington, Wyo.—Until July 9 by Bd. Trust. School Dist. No. 3 (C. G. Power, Secy.) for erecting a school; separate bids for heating and plumbing. Wm. N. Bowman, Archt., Central Savings Bank Bldg., Denver, Colo.

Webb City, Mo.—Until July 26 by Jas. A. Wetmore, Acting Supery. Archt., Washington, D. C., for constructing complete (including mechanical equipment, lighting fixtures and approaches) of U. S. Post Office at Webb City.

Galveston, Tex.—Until July 14 by Jas. A. Wetmore, Acting Supery. Archt., Washington, D. C., for remodeling U. S. Courthouse (old appraiser's warehouse), Galveston; also remodeling U. S. Post Office and Customhouse, Galveston.

Chico, Cal.—Reported desired July 7 by W. T. McClure, State Engr., Sacramento, for power house at Chico Normal School.

Brighton, Ont.—Until June 21 by Bd. Educ. (E. C. Browne, Secy.-Treas.) for erecting Union High School. Ellis & Ellis, Archts., Manning Chambers, Toronto.

Port Hope, Ont.—Until June 25 by H. A. Ward, Secy. Hospital Trus., for erecting hospital. Ellis & Ellis, Archts, Mining Chambers, Toronto.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**New Castle, Pa.**—Contract awarded by School Dist. (H. M. Marquis, Secy.) for erecting school to W. H. Chambers, New Castle, at $65,242. Next 3 lowest bids: W. H. Aubel, New Castle, $68,529; Anderson & Kramer, New Castle, $68,764; G. W. Lusk, New Castle, $68,850.

★**Philadelphia, Pa.**—Contract for erecting 3-story reinforced concrete and brick school at Tacony and Pratt Sts. awarded Thos. Reilly, 1616 Thompson St., at about $126,500.

★**South Bethlehem, Pa.**—Contract for erecting high school awarded Robt. S. Rathbun, at $131,568.

★**South Bethlehem, Pa.**—Following 4 lowest bids opened recently for erecting high school; R. S. Rathbun, Allentown, $131,568 (awarded contract); W. F. Danzer, $137,410; Robt. Pfeifle, $146,400; Groman Bros., $147,128.

Youngwood, Pa.—Following are four lowest bids opened June 1 by School Bd. for erecting high school: J. M. Pyle, Scottdale, $28,530; W. F. Jones, Scottdale, $28,668; Frank H. Hurst, Mt. Pleasant, $29,727; Brownsville Constr. Co., $30,479.

★**Chillicothe, O.**—Contract for erecting Central School awarded by Bd. Educ. to Litter & Jones, Chillicothe, at $54,313.

Detroit, Mich.—Following four lowest bids opened June 9 for erecting municipal courts building: Irwin & Leighton, Detroit, $587,400; W. E. Wood & Co., Detroit, $627,312; F. H. Goddard, Detroit, $635,342; Jas. Stewart Co., Chicago, Ill., $644,990.

★**Linn Grove, Ia.**—Contract awarded June 5 by Bd. Directors (H. L. Pierce, Secy.) for erecting school in Consolidated Independent School Dist. to J. F. Leefers Co., Cedar Rapids, at $37,250.

★**Gardner, Kan.**—Contract for erecting school awarded to Barber & Mills, of Topeka, at $22,095 (bids opened June 8). W. Williamson, Archt., Topeka.

★**Madison, S. D.**—Contract for erecting high school awarded Garner Constr. Co., Madison, at $38,392; plumbing, heating and ventilating, Mayfield & Breedlove, Madison, $11,780; structural iron, Bolton & Sons, Chicago, Ill., $3,749; tile roofing and sheet metal work, H. C. Kinsley & Co., Chicago, Ill., $3,400.

★**Havre, Mont.**—Contract for erecting court house awarded to Olson & Johnson, Missoula, at about $114,000.

Ashdown, Ark.—Lowest bid opened for erecting public school submitted by Jones & Harrington, Ft. Smith, at $26,500.

★**Ardmore, Okla.**—Contract for erecting U. S. Post Office awarded Geo. W. Stiles Constr. Co., Chicago, Ill., at $120,200.

★**San Francisco, Cal.**—Contracts for erecting Juvenile Detention Home on W. Madison St. awarded as follows: General contract to Pacific Coast Co. at $91,325; structural steel, Dyer Bros., $31,350; plumbing, H. Lawson, $14,350; heating and ventilating, Atlas Co., $3,990; elevator, Otis Elevator Co., $5,885.

PRIVATE BUILDINGS

PROPOSED WORK.

New York, N. Y.—Plans filed for 6-story brick apartment house at 178th St. and Wadsworth Ave. for Wm. Haigh, cost $125,000, Neville & Bagge, Archts., 105 W. 40th St., and for 5-story brick tenement at 159th St. and Melrose Ave. for Middleboro Realty Co., cost $40,000, M. W. Del Gaudio, Archt., 401 Tremont Ave.

Trenton, N. J.—Fireproof 250-room hotel is to replace Trenton House (Benedict C. Kuser, Prop.); cost $500,000.

Dormont, Pa.—Plans about completed by J. A. Long & Son, Benedium Trees Bldg., Pittsburgh, for 3-story and basement, 65 x 100 ft. brick and terra cotta store building; cost $50,000.

Hagerstown, Md. — Maryland Real Estate Co. will erect 8-story hotel on W. Franklin St. Cost, $100,000.

Lumberton, N. C.—H. H. Anderson will erect $30,000 hotel.

Louisville, Ky.—Plans being prepared by D. X. Murphy & Bro., Louisville, for 11-story addition, also 3 additional stories to Tyler Hotel, 3d and Jefferson Sts. Cost, $200,000.

Detroit, Mich.—Astor Theatre Co. intends erecting on Grand River Ave. and Bagg St. moving picture theatre costing $250,000.

Simpson Tabernacle Methodist Church intends erecting $80,000 church house. Rev. Howard Field, pastor.

Grand Rapids, Mich.—T. H. & J. W. Goodspeed will erect $35,000 theater on Monroe Ave. and Crescent St.

Bldg. Com. Commercial Savings Bank will soon let contracts for erecting 8-story and basement steel, concrete, brick and terra cotta fireproof bank building on Monroe Ave. and Lyon St. Cost $100,000. Amos Musselman, Pres. bank.

Chicago, Ill.—Albert Keep, 2010 Michigan Ave., it is reported, will erect a memorial club house for boys on north side; cost $200,000.

Madison, Wis.—Plans being prepared for building to be erected by Union Transfer & Storage Co. at King, Butler and W. Wilson Sts. H. F. Sharratt, Mgr.

Milwaukee, Wis. — Martin Tullgren Realty Co. will erect apartment house on Martin and Astor Sts., cost $175,000.

Cedar Rapids, Ia.—Plans being prepared for edifice for Second Christian Church to cost about $30,000. Address J. S. Forbes, in care of Iowa Ry. & Light Co.

Dubuque, Ia.—Plans submitted by Shattuck & Hussey, Chicago, Ill., for the proposed $100,000 Y. M. C. A. building.

Plans being prepared for brick edifice for First Baptist Church; cost, $30,000.

Minneapolis, Minn.—Plans completed for the Masonic lodge building to be erected at University Ave. and Orton St. for Cataract Lodge No. 2. Cost, $100,000.

Omaha, Neb.—Eagles propose erecting on 18th St. and Capitol Ave. a $50,000 lodge building.

Sioux Falls, S. D.—Plans being prepared by Harris & Huhl, Chicago, for 5-story theater and office building which Ben M. Giroux, 1239 Grace St., Chicago, will erect on Phillips Ave. and 11th St.; cost $150,000.

Denison, Tex. — Press reports state Texas Power & Light Co., Dallas, intends erecting power plant on Red River near Dennison; also high power transmission lines from its Waco plant to Temple, Taylor and Thrall.

Tacoma, Wash.—First Congregational Church plans erecting a $50,000 parish house and parsonage. Rev. Frank Dyer, Pastor.

Oakland, Cal.—Permit issued for theater and store building on Franklin St. by H. C. McPike, Attorney, Syndicate Bldg.; cost $100,000.

Lewiston, Idaho—Plans being prepared for 6-story 100 x 160 ft. fireproof brick, hollow tile hotel to be erected by P. C. Dahlhjelm, Means Bldg.; cost $250,000.

BIDS DESIRED.

Buffalo, N. Y.—Reported desired by Jas. J. Gergand, Archt., 346 Herman St., for erecting a 3-story storage building, structural steel and brick, at 475 Ellicott St.; cost, $35,000.

Rochester, N. Y.—Reported desired June 23 by Wm. J. Brackett, Archt., Powers Bldg., for erecting a 3-story and basement steel, stone, terra cotta and brick Labor Temple for the Labor Temple Assoc. Cost, $90,000.

Alliance, O.—Reported desired until June 21 by Labor Temple Assoc. (Otis Wilcox, Chmn. Bldg. Com.) for erecting 2-story temple, cost, $45,000. C. C. & A. L. Thayer, Archts., New Castle, Pa.

Marion, O.—Until July 1 by J. Lewis Ellis, Archt., Ackerman Bldg., for erecting 3-story and basement lodge, store and office building for Odd Fellows. Cost, $42,000.

Chicago, Ill.—R. Trimble, Pennsylvania Station, Pittsburgh, Pa., Ch. Engr. M. of W. of Pennsylvania Lines, writes bids will be received at his office June 23 for furnishing and erecting steel superstructure of proposed freight house at Polk St., Chicago.

Boyceville, Wis.—Until June 21 by W. R. Zabel, Boyceville, for erecting a brick creamery. C. Kauper & Son, St. Paul, Minn.

Sioux City, Ia.—Reported desired about July 1 by Bldg. Com. for erecting First Methodist Church at 19th and Nebraska Sts. Beuttler & Arnold, Archts., Sioux City. Cost, including furnishings, $100,000.

Minot, N. D.—Until July 10 by Chas. W. Moore, Minot, for erecting 2-story and basement brick garage. Fredk. A. Schweiger, Archt, Minot.

Levis, Que. — Reported desired until June 25 by Intercolonial Ry. Co. (F. P. Gutileus, Gen. Mgr., Moncton, N. B.), for erecting brick and steel freight sheds here.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**St. Johnsbury, Vt.**—Contract for erecting granite Grace Methodist Church awarded Cummings Constr. Co., Ware, Mass.; cost $50,000.

★**Buffalo, N. Y.**—General contract for erecting 4-story brick and steel store and loft building for D. H. Coplon & Co. awarded Geo. Schaaf, 547 E. Utica St., at $38,000.

★**Utica, N. Y.**—General contract awarded John L. Hughes Constr. Co., 211 Post St., for erecting brick, steel and terra cotta theatre, 68 x 125 ft., for H. G. & A. J. Lux & Son; cost, $40,000.

★**Atlantic City, N. J.**—Contract for erecting 11-story brick, steel, concrete and terra cotta addition to Hotel Rudolph awarded Alex. Chambley, Philadelphia, Pa. Cost $500,000.

★**Mauch Chunk, Pa.**—Contract awarded to Chas. Neast, Mauch Chunk, for erecting St. John's Lutheran Church at Upper Mauch Chunk; cost $75,000.

★**Philadelphia, Pa.**—Contract awarded Cramp & Co., Philadelphia, for erecting 12-story steel, reinforced concrete, brick, stone and terra cotta apartment house at 17th and Walnut Sts. for Arthur W. Drayton; cost $250,000.

★**Pittsburgh, Pa.**—Contract for erecting at 7th St. and Duquesne Way 6-story brick, stone and steel club house for B. P. O. E. No. 11 awarded Rose & Fisher, Penna Ave.; F. C. Sauer, Archt., 804 Penn Ave.

★Contract for 3-story residence and garage for Col. A. R. Hunt at W. Woodland Rd., Squirrel Hill, awarded M. Nirdlinger, Pittsburgh; cost $50,000.

★Contract for 2-story brick double deck stock pen on Herr Island for Pennsylvania R. R. reported awarded Bailey-Lush Co., of Philadelphia; cost $150,000.

Woodlawn, Pa.—Contract for erecting $25,000 Moose Club house at Woodlawn awarded Martsolf Bros., House Bldg., Pittsburgh, Pa.

★**Washington, D. C.**—Contract for addition to National Savings & Trust Co. building at 15th St. and New York Ave. awarded Boyle Robertson Co., Washington, at about $157,000. A. P. Clark, Jr., Washington, Archt.

★Contract for erecting 5-story Colored Masonic Temple at 10th and U Sts. N. W. awarded to W. A. Kimmel, 1508 Columbia St. N. W. Cost about $185,000. N. T. Heller, Archt., Corcoran Bldg.

★**Norfolk, Va.**—Contract for erecting First Calvary Baptist Church (colored) awarded J. E. Wells. Mitchell & Wilcox, Archts.

★**Pulaski, Va.**—Contract for erecting Stewart Memorial Methodist Church awarded Hoback & Hufford, Pulaski; cost $30,000.

★**Columbus, O.**—Contract for erecting St. Leo Church on Hanford St. awarded to Edw. & Chas. Lang, 565 S. 5th St.; cost $40,000.

★**Negaunee, Mich.**—Contract for erecting warehouse and refrigerating plant on Silver St. awarded by Winter & Suess to Fred E. King.

★**Green Bay, Wis.**—Contract awarded June 5 by Foeller & Schober, Archts., Paul Fox Blk., for erecting 2-story bank building for McCartney Natl. Bank, as follows: General construction to H. J. Selmer; heating to B. B. Shine; plumbing to Geo. Reeke; wiring to Tingley Electric Co. (bidders all of Green Bay).

★**Cedar Rapids, Ia.**—Contract awarded Loomis Bros., Cedar Rapids, for erecting $30,000 garage at 5th St. and 2nd Ave.

★**Fort Dodge, Ia.**—Contract awarded W. D. Lewis Co., New York, N. Y., at $43,700 for erecting 5-story fireproof warehouse for Ft. Dodge Terminal & Warehouse Co.

★**Waco, Tex.**—Contract for erecting building at 6th and Austin Sts. for Rotan Realty Co. awarded A. Alford, of Waco; cost $40,000

NEW INDUSTRIAL PLANTS

PROPOSED WORK.

Haverhill, Mass.—J. S. Moore, reported planning erecting 9-story brick industrial building on Hale St.

New Haven, Conn.—New Haven Pulp Board Co. intends erecting 3 reinforced concrete factories costing $100,000.

Auburn, N. Y.—Enkel Motor Co. (C. Howard Williams, Vice-Pres. and Gen. Mgr.), will erect plant for manufacture of Diesel type automobile motor. Carl Dalgrin, Ch. Engr.

Buffalo, N. Y.—Plans being prepared for 10-story cold storage warehouse on Perry St. for the Buffalo Cold Storage Co., Perry and Columbia Sts.; cost $500,000.

Buffalo, N. Y.—Automobile Aviation Co., 322 Pennsylvania St. (H. F. Hanford, Secy.), intends to erect a factory.

Buffalo Copper & Brass Rolling Mills, 446 Military road, intend to erect additions to their plant.

Brooklyn, N. Y.—Plans prepared by Frank J. Helmle, 190 Montague St., for 10-story factory to be erected on Flatbush Ave., Extension and Concord St. for Sperry Gyroscope Co., 126 Nassau St., Brooklyn.

Jamestown, N. Y.—Plans being prepared for 4-story factory for Elite Furniture Co. Axel E. Bloomquist, Supt.

Plans completed by Freebury & Fidler, Jamestown, for 3-story, 50 x 106-ft. factory, brick and steel, for Crescent Tool Co.; cost, $55,000.

Lockport, N. Y.—Plans being prepared by Fibre Corporation (W. R. Seigle, Pres.) for a manufacturing plant to replace plant destroyed by fire; cost $100,000.

McKeesport, Pa.—Reported contracts soon to be let by McKeesport Tinplate Co. for erecting addition to plant.

Philadelphia, Pa.—American Ice Co., 6th and Arch Sts., to erect on America and Cambria Sts. an ice plant, 200 tons daily capacity; Germantown plant on Armat St. to be remodeled and enlarged; Atlantic City plant also to be enlarged.

Reported Pennsylvania R. R. (Wm. Shand, Ch. Engr., Philadelphia) intends enlarging Girard Point grain elevator, from present capacity, 110,000 bu., to 2,000,000; cost $250,000.

Spray, N. C.—Plans about completed by Frank P. Sheldon & Son, Providence, R. I., for central electric power station to be erected for Thread Mills Co.

Girard, O.—Reported Carnegie Steel Co. will erect large mill here.

Greenville, O.—Great Eastern Toller Co. to erect plant on Front St. Cement block construction. H. H. Arnett, Mgr.

St. Paul, Minn.—St. Paul Milling Co. reported incorporated by J. F. Diefenbach, 708 Pioneer Bldg., and others, and will erect flour mill here; daily capacity 1000 bbls; cost $100,000.

Muskogee, Okla.—Muskogee Oil Refining Co. intends making improvements to plant.

Anaconda, Mont.—Reported 500,000 ton custom plant to be erected at Titanic Mines for treatment of low grade ore; cost reported at $300,000. Geo. H. Dorn, Mgr. Mines Operating Co., Park City, Utah, may give further information.

Anacortes, Wash.—Reported National Potash & Iodine Co. will erect on Decatur Island, near Anacortes, plant for manufacture of potash and nitrates from kelp beds of San Juan Islands. Cost, $25,000.

Bellingham, Wash.—Reported Pacific American Fisheries Co., Bellingham, intends erecting plant for manufacture of vacuum canning machines on Commercial Point; will also erect warehouse and dock; cost approximately $100,000.

BIDS DESIRED.

Buffalo, N. Y.—By Monarch Eng. Co., Chamber of Commerce Bldg., for erecting 12-story elevator and mill steel frame and concrete for Clover Lead Milling Co. Cost $250,000.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Waterville, Me.**—Contract awarded Horace Purinton Co., Waterville, for Maine Central R. R. shops here; cost $60,000.

★**Springfield, Mass.**—Contract awarded to Ernest F. Carlson Co., 106 Grenada Terrace, for erecting brick and limestone factory on Locust St. for Somers Creamery Co. B. E. Geckler, Archt.

★**Brooklyn, N. Y.**—Contract for erecting 10-story reinforced concrete factory on Bway. and Wythe Ave. awarded Moyer Eng. & Constr. Co., 375 Fulton St. Cost about $550,000. Wm. Higginson, Arct. and Engr., 13 Park Row, N. Y. City.

★Contract for erecting at 9th and 10th Sts., Kent Ave. and East River group of brick, stone and steel buildings for F. & M. Schaefer Brewing Co., Park Ave. and 51st St., New York, awarded John Pierce Co., 383 Madison Ave., New York. Archts., Mortensen & Co., 405 Lexington Ave., New York.

★**Buffalo, N. Y.**—Contract awarded to John W. Cowper & Co., Buffalo, for erecting 3-story brick and steel 75 x 175 ft. factory for Schoellkopf Hartford Hanna Co. for manufacture of aniline

dyes; cost $45,000; Structural steel sublet to Ferguson Steel & Iron Co., Buffalo.

★Contract for erecting 1-story brick and steel foundry and coal storage building 222 x 234 ft. for "Pierce Plant" of the American Radiator Co. awarded to F. S. Mathewson, 702 White Bldg. John C. Youngberg, Archt., Chicago.

★**Eddystone, Pa.**—Contract awarded by Baldwin Locomotive Co. to Remington Arms & Ammunition Co., Bridgeport, Conn., for erecting arms plant here; cost $75,000.

★**Philadelphia, Pa.**—Contract awarded to Turner Concrete Steel Co., Philadelphia, for erecting 4-story reinforced concrete brick and terra cotta factory, 100 x 190 ft., for A. H. & F. H. Lippincott. M. H. Dickinson, Archt., Empire Bldg.

MISCELLANEOUS

PROPOSED WORK.

Steam Heating — Miles City, Mont.—City Council recommended extension of municipal steam heating system, at an estimated cost of $10,370, from plans of J. J. McGill, of Municipal Light & Power plant

Parks—Houston, Tex.—See "Sewerage and Sewage Disposal."

Prince Rupert, B. C.—Grand Trunk Pacific Co. reported considering installation of automatic sprinkler system in car shops, dock building, Administration building and warehouses in this city; cost about $50,000. Jos. Hobson, Consulting Engr., Montreal, Que.

BIDS DESIRED.

Laundry Equipment—Sonyea, N. Y.—Until July 7 by Percy L. Long, Pres. Bd. Mgrs. Craig Colony, for Epileptics, for laundry building equipment, advertised in Engineering Record.

Traction Engine—Atlanta, Ga.—Until June 30, by C. M. Holland, County Purchasing agent, for a traction engine, gasoline or oil, for Comrs. Roads and Revenues advertised in Engineering Record.

Elevator Enclosure—Springfield, O.—Until June 29 by Bd. Hospital Trus. (Wm. H. Mahoney, Clk.) for reinforced concrete elevator enclosure with fireproof doors and rolling curtains at Springfield City Hospital. Robt. C. Gotwald, Archt., Gotwald Bldg.

Jib Cranes—Chicago, Ill.—Until June 26 by L. E. McGann, Comr. Pub. Wks., for 6 jib cranes at Marshall Boule. municipal plant, W. 31st St. and S. Sacramento Ave.

Metal Work for Light Station Tower, Milwaukee, Wis.—Until June 21 by Lighthouse Inspector, Milwaukee, to furnish f.o.b. Milwaukee, metal work for steel tower for Manistique Light Station.

Steel, Iron, Wire, Etc.—Panama.—Until June 25 by Maj. F. C. Boggs, Corps Engrs., U. S. A., General Purchasing Officer, Panama Canal, Washington, D. C., for Cir. 934—Steel, iron, wire, cable, etc.

Corrugated Roofing, Soil Pipe, Etc.—Panama—Until July 1 by Maj. F. C. Boggs Corps Engrs., U. S. A., General Purchasing Officer, The Panama Canal, Washington, D. C., for galvanized corrugated roofing, soil pipe, etc, according to Circular 935.

Proposals

For Proposals Advertised, see Pages 46, 47 and 48.

WATERWORKS.

Bids. Close.		See Eng. Record.
Jun. 21.	Pump, Salem, Mass. Adv. May 29.	May 29
Jun. 22.	Improv., Butler, Mo. Adv. Jun. 5.	Jun. 5
Jun. 22.	Contract 159, Coagulating Plant, New York, N. Y. Adv. Jun. 5.	Jun. 5
Jun. 22.	Boiler, Lincoln, Neb. Adv. Jun. 12.	Jun. 12
Jun. 22.	Pipe, St. Louis, Mo.	Jun. 12
Jun. 22.	Gate Valves, Chicago, Ill.	Jun. 19
Jun. 23.	Dam, Dundas, Ont.	Jun. 19
Jun. 24.	Water Work, Oldfield, N. Y. Adv. June 12.	Jun. 12
Jun. 24.	Wells, Lowellville, O.	Jun. 19
Jun. 25.	Tower, Stratford, Ont. Adv. Jun. 5. 12.	Jun. 5
Jun. 25.	Water Wks. Improv., Harrison, Ark.	May 29
Jun. 25.	Dam, Filter Plant, Etc. Le Roy, N. Y. Adv. June 12. 19.	Jun. 12
Jun. 25.	Service Pipe, Chicago, Ill.	Jun. 19
Jun. 25.	Boilers, etc., Gloucester City, N. J.	Jun. 19
Jun. 28.	Water Works Improv., Media, Pa. Adv. Jun. 19.	Jun. 19
Jun. 29.	Water Works, Rittman, O. (2 Prop.) Adv. Jun. 12, 19.	Jun. 12
Jun. 30.	Reservoir, Etc., St. Mary's, W. Va.	Jun. 19
Jun. 30.	Pump. Machinery, Chicago, Ill.	Jun. 19
Jun. 30.	Pump, Baltimore, Md. Adv. Jun. 19.	Jun. 19
Jul. 1.	Dam, Columbus, O. Adv. Jun. 5	Jun. 5
July 7.	Rack, shutters, etc., Contract 149, New York, N. Y. Adv. Jun. 19.	Jun. 19
July 8.	Pipe, Covington, Ky.	Jun. 19
July 9.	Standpipe, San Juan, P. R.	Jun 19
July 12.	Improvements, Covington, Va. Adv. Jun. 19.	Jun. 19
July 12.	Turbines, Ryde, New South Wales	Jun. 19

SEWERAGE AND SEWAGE DISPOSAL.

Bids. Close.		See Eng. Record.
Jun. 21.	Greenwich, Conn. Adv. Jun. 12.	Jun. 12
Jun. 21.	Washington, D. C. Adv. Jun. 19.	Jun. 19
Jun. 22.	Baltimore, Md.	May 29
Jun. 22.	Scarsdale, N. Y. Adv. June 12.	Jun. 12
Jun. 22.	Canton, O.	Jun. 12
Jun. 23.	Long Island City, L. I., N. Y.	Jun. 19
Jun. 23.	Canton, O.	Jun. 19
Jun. 24.	Chicago, Ill. Adv. Jun. 5.	Jun. 5
Jun. 24.	Cleveland, O.	Jun. 19
Jun. 24.	Lowellville, O.	Jun. 19
Jun. 25.	Indianapolis, Ind.	Jun. 19
Jun. 25.	Chicago, Ill.	Jun. 19
Jun. 28.	Kirkville, Mo.	Jun. 19
Jun. 29.	Newton, Ia. Adv. Jun. 19.	Jun. 19
Jun. 29.	Columbus, O. Adv. Jun. 19.	Jun. 19
Jun. 29.	Columbus, O. Adv. Jun. 19.	Jun. 19
Jun. 29.	Glencoe, Minn.	Jun. 19
Jun. 29.	Port Angeles, Wash.	Jun. 19
Jun. 30.	Winston-Salem, N. C.	Jun. 19
July 2.	Brewster, O.	Jun. 19

BRIDGES.

Bids. Close.		See Eng. Record.
Jun. 22.	Albany, Ore.	Jun. 19
Jun. 22.	Marshall, N. C.	Jun. 19
Jun. 23.	San Francisco, Cal.	Jun. 12
Jun. 23.	Baltimore, Md.	Jun. 19
Jun. 23.	Illinois	Jun. 19
Jun. 23	Manayunk, Pa.	Jun. 19
Jun. 24.	Santa Barbara, Cal.	Jun. 19
Jun. 25.	Seattle, Wash.	May 29
Jun. 25.	Williamsport, Pa.	Jun. 12
Jun. 25.	Cincinnati, O.	Jun. 19
Jun. 26.	Sullivan, Ind.	Jun. 19
Jun. 26.	Clataskanie, Ore.	Jun. 19
Jun. 28.	Lebanon, O.	Jun. 5
Jun. 28.	Seattle, Wash.	Jun. 19
Jun. 28.	Allentown, Pa.	Jun. 19
Jun. 28.	New York, N. Y.	Jun. 19
Jun. 28.	Rockford, Ill. Adv. Jun. 19.	Jun. 19
Jun. 29.	Scarsdale, N. Y. Adv. June 12.	Jun. 12
Jun. 29.	St. Louis, Mo.	Jun. 12
July 2.	Cincinnati, O.	Jun. 19
July 5.	Colfax, Wash.	Jun. 19
July 5.	Columbus, Miss.	Jun. 19
July 6.	Orange, Cal.	Jun. 19
July 6.	Hankinson, N. D.	Jun. 19
July 6.	Colfax, Wash.	Jun. 19
July 7.	Washington	Jun. 19
July 7.	Canton, O.	Jun. 19
July 9.	Cincinnati O.	Jun. 19
July 12.	Lebanon, O.	Jun. 19
July 28.	Seattle, Wash.	Jun. 19

PAVING AND ROADS.

Bids. Close.		See Eng. Record.
Jun. 21.	Clarksville, Tex. Adv. Jun. 5.	Jun. 5
Jun 22.	Maryland	Jun. 5
Jun. 22.	Washington, D. C. (2 Prop.) Adv. Jun. 12.	Jun. 12
Jun. 22.	Port Townsend, Wash.	Jun. 12
Jun. 22.	Philadelphia, Pa.	Jun. 12
Jun. 22.	Struthers, O.	Jun. 19
Jun. 22.	Chicago, Ill.	Jun. 19
Jun. 22.	Omaha, Neb.	Jun. 19
Jun. 22.	Marion, Ind.	Jun. 19
Jun. 22.	Middletown, O.	Jun. 19
Jun. 22.	Kansas City, Mo.	Jun. 19
Jun. 22.	Boston, Mass.	Jun. 19
Jun. 23.	Canton, O.	Jun. 12
Jun. 23.	Baltimore, Md.	Jun. 19
Jun. 23.	Chicago, Ill.	Jun. 19
Jun. 23.	Norwalk, O.	Jun. 19
Jun. 24.	Elmira, N. Y. Adv. June 12, 19.	Jun. 12
Jun. 24.	New York, N. Y.	Jun. 19
Jun. 24.	Sturgis, Mich.	Jun. 19
Jun. 24.	Elkton, Md.	Jun. 19
Jun. 25.	Mt. Gilead, O.	Jun. 12
Jun. 25.	Shawano, Wis.	Jun. 19
Jun. 25.	Cincinnati, O.	Jun. 19
Jun. 25.	Columbus, O.	Jun. 19
Jun. 25.	Chicago, Ill.	Jun. 19
Jun. 26.	Columbus, O.	May 22
Jun. 26.	Wakeman, O.	Jun. 19
Jun. 26.	Elgin, Ill.	Jun. 19
Jun. 28.	Green Bay, Wis.	Jun. 12
Jun. 28.	Everett, Wash.	Jun. 19
Jun. 28.	Brockton, Ill.	Jun. 19
Jun. 28.	Columbus, O.	Jun. 19
Jun. 28.	Cairo, Ill.	Jun. 19
Jun. 29.	Grand View Heights, O.	Jun. 5
Jun. 29.	Toledo, O.	Jun. 5
Jun. 29.	Merrill, Wis.	Jun. 12
Jun. 29.	Scarsdale, N. Y. Adv. June 12.	Jun. 12
Jun. 29.	Malvern, O.	Jun. 19
Jun. 29.	Seattle, Wash.	Jun. 19
Jun. 29.	Fairmont, Minn.	Jun. 19
Jun. 29.	Meriden, Conn. Adv. Jun. 19.	Jun. 19
Jun. 29.	Carlisle, Ky.	Jun. 19
Jun. 30.	De Land, Fla. (Two prop.) Adv. June 5, 12.	Jun. 5
Jun. 30.	Trenton, N. J.	Jun. 19
Jun. 30.	Mays Station, Ill	Jun. 19
Jun. 30.	Stamford, Conn. Adv. Jun. 19.	Jun. 19
July 1.	Lebanon, Pa.	Jun. 19
July 1.	Lebanon, Pa. Adv. Jun. 19.	Jun. 19
July 2.	Philadelphia, Pa. Adv. Jun. 19.	Jun. 19
July 2.	Granite Falls, Minn.	Jun. 19
July 3.	Tiverton, R. I.	Jun. 19
July 3.	Frederick, Md.	Jun. 19
July 3.	Cleveland, O.	Jun 19
July 6.	Mansfield, La. Adv. June 12.	Jun. 12
July 6.	Hopkins, Minn.	Jun. 19
July 6.	Lockland, O.	Jun. 19
July 6.	Alabama	Jun. 19
July 6.	Trenton, Ga.	Jun. 19
July 7.	Albany, N. Y. Adv. Jun. 19.	Jun. 19
July 9.	Cincinnati, O.	Jun. 19
July 12.	Washington	Jun. 19
July 20.	Oelwein, Ia.	Jun. 19

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Bids. Close.		See Eng. Record.
Jun. 21.	Dredging, Boston, Mass. Adv. May 22 to June 12.	May 22
Jun. 21.	Dredging, Philadelphia, Pa. Adv. May 22 to June 12.	May 22
Jun. 21.	Repair to Bank Protection, Augusta, Ga. Adv. May 29 to June 19.	May 29
Jun. 22.	Drainage, Holly Hill, S. C.	Jun. 12
Jun. 22.	Ditches, Port Lavaca, Tex.	Jun. 12
Jun. 22.	Levee Work, New Orleans, La.	Jun. 19
Jun. 22.	Drainage Work, Eagle Lake, Tex.	Jun. 19
Jun. 23.	Breakwater, Oswego, N. Y. Adv. June 5 to 19.	Jun. 5
Jun. 24.	Drainage Dist. Work, Chicago, Ill.	Jun. 19
Jun. 25.	Wharf, Southport, N. C.	May 29
Jun. 25.	Rip Rap and Repairing Sea-Wall, New York, N. Y. Adv. May 29 to June 19.	May 29
Jun. 25.	Ditches, Three Lake, Wis.	Jun. 12
Jun. 25.	Dredging, New York, N. Y.	Jun. 19
Jun. 26.	Levee Wk., Caldwell, Tex.	May 29
Jun. 26.	Levee Enlargement, Vicksburg, Miss. Adv. June 5 to 19.	Jun. 5
Jun. 26.	Levee Wk., Memphis, Tenn. Adv. June 12, 19.	Jun. 12
Jun. 26.	Dredging, Chatham, Ont.	Jun. 19
Jun. 28.	Dredging, New York, N. Y. Adv. June 5 to 19.	Jun. 5
Jun. 28.	Ditch Wk., Buffalo, Minn.	Jun. 12
Jun 28.	Jetty Repair, Wilmington, Del. Adv. June 12, 19.	Jun. 12
Jun. 28.	Dam and Dredging, Beaumont, Tex.	Jun. 19
Jun. 29.	Repairing Wall and Breakwater, Block Island, R. I. Adv. June 5 to 19.	Jun. 5
Jun. 29.	Ditch, Morris, Minn.	Jun. 19
Jun. 30.	Steel for Lock Construction, Sault Ste. Marie, Mich. Adv. May 29 to June 19.	May 29
Jun. 30.	Air Compressor Plant, Pittsburgh, Pa. Adv. Jun. 19.	Jun. 19
Jun. 30.	Ferry and Dock Improvement, West Point, N. Y. Adv. June 5 to 19.	Jun. 5
Jun. 30.	Gates for Irrigation Dam, El Paso, Tex. Adv. June 12.	Jun. 12
Jul. 1.	Irrigation, Great Falls, Mont.	Jun. 5
July 1.	Ditches, Bartow, Fla.	Jun. 12
July 2.	Spillway, Etc., at Dam, Middletown, O.	Jun. 19
July 2.	Retaining Wall, Cincinnati, O.	Jun. 19
July 8.	Riprap, Philadelphia, Pa. Adv. Jun. 19.	Jun. 19
July 12.	Dredging, Philadelphia, Pa.	Jun. 19
July 12.	Irrigation Work, Grand Junction, Colo. Adv. Jun. 19.	Jun. 19
July 13.	Shed, Panama	Jun. 19
July 15.	Timber Wharf, Charleston, S. C.	Jun. 19
July 15.	Irrigation Work, Goshen, Utah	Jun. 19
July 15.	Dredging, New York, N. Y. Adv. Jun. 19.	Jun. 19
July. 19.	Steel Gates, Wilmington, N. C. Adv. Jun. 19.	Jun. 19
July 31.	Dredging, Pearl Harbor, Hawaii	Jun. 19
Aug. 24.	Dredger, Adelaide, Australia	Jun. 19
——	State Canal Work, Mechanicsville, N. Y. Adv. Jun. 19.	Jun. 19

PUBLIC BUILDINGS AND SCHOOLS.

Bids. Close.		See Eng. Record.
Jun. 21.	Ft. Terry, N. Y. Adv. May 29 to June 19.	May 29
Jun. 22.	Hastings, Mich.	Jun. 12
Jun. 23.	Allentown, Pa.	May 22
Jun. 22.	Fairmont, Minn.	Jun. 12
Jun. 22.	Lawrenceburg, Ky.	Jun. 12
Jun. 22.	Charleroi, Pa.	Jun. 19
Jun. 22.	Minneapolis, Minn.	Jun. 19
Jun. 22.	Pittsburgh, Pa.	Jun. 19
Jun. 22.	Collinston, La.	Jun. 19
Jun. 22.	Faribault, Minn.	Jun. 19
Jun. 23.	Beverly, O.	Jun. 5
Jun. 23.	Ramona, Okla.	Jun. 12
Jun. 23.	Morton, Minn.	Jun. 19
Jun. 23.	Parkersburg, Pa.	Jun. 19
Jun. 23.	Southbridge, Mass.	Jun. 19
Jun. 23.	Cleveland, O.	Jun. 19
Jun. 23.	Ft. Terry, N. Y. Adv. Jun. 19.	Jun. 19
Jun. 24.	Mt. Vernon, N. Y.	May 29
Jun. 24.	Stoneboro, Pa.	Jun. 19
Jun. 24.	Odessa, Minn.	Jun. 19
Jun. 25.	Cleveland, O.	Jun. 5
Jun. 25.	Toledo, O.	Jun. 5
Jun. 25.	Port Hope, Ont.	Jun. 19
Jun. 26.	Radnor, O.	Jun. 5
Jun. 26.	Brooklyn, N. Y.	Jun. 5
Jun. 26.	Walton, Ind.	Jun. 12
Jun. 26.	Medicine Lodge, Kan.	Jun. 19
Jun. 26.	New Haven, Conn.	Jun. 19
Jun. 26.	McArthur, O.	Jun. 19
Jun. 27.	Butte, Mont.	Jun. 19
Jun. 27.	Lockport, N. Y.	Jun. 19
Jun. 28.	Canton, O.	May 29
Jun. 28.	Poplar, Mont.	Jun. 19
Jun. 28.	Bath, Pa.	Jun. 19
Jun. 28.	Goodwin, S. D.	Jun. 19
Jun. 28.	Marquette, Mich.	Jun. 19
Jun. 29.	Charleston, W. Va.	Jun. 5
Jun. 29.	Fedora, S. D.	Jun. 12
Jun. 29.	Ft. Myer, Va. Adv. Jun. 19.	Jun. 19
Jun. 29.	Maine	Jun. 19
Jun. 29.	Middletown, N. Y. Adv. Jun. 19.	Jun. 19
Jun. 29.	Wolf Point, Mont.	Jun. 19
Jun. 29.	Hosmer, S. D.	Jun. 19
Jun. 29.	Indianapolis, Ind.	Jun. 19
Jun. 30.	Chapel Hill, N. C.	Jun. 12
Jun. 30.	Muncy, Pa.	Jun. 12
Jun. 30.	Winchester, Ind.	Jun. 19
Jun. 30.	Sault Ste. Marie, Mich.	Jun. 19
Jun. 30.	Crow Agency, Mont.	Jun. 19
Jun. 30.	Marion, O.	Jun. 19
Jun. 30.	Syracuse, N. Y.	Jun. 19
Jun. 30.	Washington, D. C.	Jun. 19
July 1.	Boston, Mass.	May 22
July 1.	Renova, Pa. Adv. June 12.	Jun. 12
July 1.	Plans, Springfield, Mass.	Jun. 12
July 1.	Cedartown, Ga.	Jun. 19
July 2.	Charlotte, N. C.	May 29
July 2.	Ireton, Ia.	Jun. 19
July 2.	Brookville, O.	Jun. 19
July 2.	Milbank, S. D.	Jun. 19
July 3.	Hanover, O.	Jun. 19
July 5.	Anniston, N. D.	Jun. 19
July 6.	Savannah, Ga.	Jun. 12
July 6.	Douglas, Wyo.	Jun. 19
July 6.	Cherokee, Ia.	Jun. 19
Jul. 7.	San Francisco, Cal.	Jun. 5
July 7.	Brandywine, Md.	Jun. 19
July 7.	Indianapolis, Ind.	Jun. 19
July 7.	Kellerton, Ia.	Jun. 19
July 7.	Chico, Cal.	Jun. 19
July 8.	Des Moines, Ia.	Jun. 5
July 8.	Fultonham, O.	Jun. 19
July 9.	Cleveland, O.	Jun. 19
July 9.	Beardstown, Ill.	Jun. 5
July 9.	Torrington, Wyo.	Jun. 19
July 10.	Swanton, O.	Jun. 19
July 13.	Washington, D. C.	May 29
July 14.	Galveston, Tex.	Jun. 19
July 20.	Indianapolis, Ind.	Jun. 12
July 21.	New Orleans, La. Adv. Jun. 19.	Jun. 19
July 26.	Webb City, Mo.	Jun. 19
Aug. 1.	Seattle, Wash.	Jun. 5
——	Greenville, S. C. Adv. May 1.	May 1

PRIVATE BUILDINGS.

Bids. Close.		See Eng. Record.
Jun. 22.	Biscay, Minn.	Jun. 12
Jun. 23.	Chicago, Ill.	Jun. 19
Jun. 24.	Albert Lea, Minn.	Jun. 12
Jun. 25.	Levis, Que.	Jun. 19
Jun. 29.	Manning, N. D.	Jun. 19
July 1.	Marion, O.	Jun. 19
July 10.	Minot, N. D.	Jun. 19
July 15.	Vancouver, B. C.	Jun. 12

MISCELLANEOUS.

Bids. Close.		See Eng. Record.
Jun. 21.	Painting, Etc., Hospital, Ft. Sill, Okla. Adv. Jun. 12.	Jun. 12
Jun. 22.	Iron, Steel, Etc., Washington, D. C.	Jun. 5
Jun. 24.	Garbage Disposal, Etc., Detroit, Mich.	Jun. 5
Jun. 25.	Rock, New Orleans, La.	Jun. 12
Jun. 25.	Steel, Iron, Etc., Panama.	Jun. 19
Jun. 26.	Sulphate of Alumina, Washington, D. C. Adv. June 5 to 19.	Jun. 5
Jun. 26.	Jib Cranes, Chicago, Ill.	Jun. 19
Jun. 29.	Stone, Memphis, Tenn.	Jun. 12
Jun. 29.	Elevator Enclosure in Hospital, Springfield, O.	Jun. 19
Jun. 29.	Street Cleaning, Roanoke, Va.	Jun. 19
Jun. 30.	Rip Rap Stone, Memphis, Tenn.	Jun. 12
Jun. 30.	Traction engine for roads, Atlanta, Ga. Adv. Jun. 19.	Jun. 19
July 1.	Crane, Halifax, N. S.	May 22
July 1.	Corrugated roofing, soil pipe, etc., Panama	Jun. 19
July 7.	Laundry equipment, Sonyea, N. Y. Adv. Jun. 19.	Jun. 19
July 12.	Tunnel, Pittsburgh, Pa. Adv. June 5 to 19.	Jun. 5
July 12.	Repair wharves, Portland, Ore. Adv. Jun. 19.	Jun. 19

New Construction Activities

It is estimated that the value of orders calling for the export of steel and metal products to Europe since the first of the year totals $525,000,000, and that orders for steel, all of which will be exported, exceed 50 per cent of the orders being booked. This compares with 10 per cent in ordinary times, and as the steel industry is just approaching capacity operation, gives an idea of the falling off in domestic construction. Plates, bars and shapes have been advanced $1, to $25 a ton, at the Pittsburgh mills, and further advances are looked for.

Railway equipment orders, in addition to calling for 250,000 tons of steel last week, are said to have improved the lumber market. Several large contracts to cover car building have been placed in Chicago.

Increased freight carrying to the Eastern seaboard seems to be indicated in the May statement of the Baltimore & Ohio Railroad, which shows a substantial gain in gross operating revenue over the corresponding month of 1914 for the first time during the current fiscal year. If this indication is correct, the position of the Eastern roads will be strengthened, although it is doubtful whether any great increase in construction work for these lines would follow in the immediate future.

Governor Brumbaugh of Pennsylvania has approved an $8,300,000 appropriation for State road work.

Buildings

Two large building contracts are reported this week, one, for the Frick Arcade at Pittsburgh, having been awarded at $2,500,000, and the other for the Oklahoma State Capital, for which the lowest bid submitted was in excess of $1,300,000. Another building contracted for in Pittsburgh will cost more than $300,000. The contract for a seven-story steel-and-concrete warehouse was awarded during the week at Syracuse, N. Y., and a $200,000 building contract was awarded at Utica, N. Y. Bids were opened on a $123,000 fire station at Philadelphia. On the Pacific Coast, two contracts were awarded, one at Spokane and the other at Walla Walla, Wash., totaling $257,000. Bids are desired on a $250,000 rubber factory at Akron, Ohio, and on a $400,000 theatre at Milwaukee.

Providence, R. I., has appropriated $175,000 to build a grammar school. Plans have been prepared for a $100,000 theatre at East Boston, Mass., and plans have been filed for a $200,000 apartment building in New York City. Plans have been completed for a group of mill buildings to be erected at Ellwood City, Pa., at a cost of $1,000,000. Plans are being prepared for a $150,000 school at Lansford, Pa. Plans have been filed for a $375,000 reinforced-concrete building in Brooklyn. The contract for a $100,000 orphanage will soon be let at Superior, Wis. The University of Rochester, at Rochester, N. Y., and the University of California, at Berkeley, contemplate erecting buildings costing from $150,000 to $400,000.

Bridges and Roads

The contract for a $140,000 drawbridge has been awarded at Martinez, Cal. A $56,000 bridge over the Brazos River at Houston, Texas, has been awarded. Bids are desired in Philadelphia on three bridges to cost $134,000. The State of Illinois desires bids on twenty-four highway bridges whose cost will total about $90,000. Bids are also desired on a number of highway bridges by the State of Michigan. Plans are being prepared for a bridge over the Des Moines River at Des Moines, Iowa. Plans have been approved at Kansas City for the Eighteenth Street viaduct, which will cost $136,000. Two concrete bridges which will cost $60,000 are proposed at Florence, Ariz.

Bids on road work which will cost several hundred thousand dollars were opened June 16 at Albany. The lowest bid on the Philadelphia paving work was $303,000. Four paving contracts awarded at Pittsburgh total $207,000. A contract for road work at Tavares, Fla., was awarded at $79,000. Montreal has awarded a $65,000 paving contract, and Duluth has awarded four contracts totaling $96,000. An $88,000 contract has been awarded at Findlay, Ohio, and the lowest bid opened June 8 at Stockton, Cal., for paving work, was $71,000. Quite a number of $50,000 contracts are noted.

Bids are desired on road contracts valued in six figures by the States of Ohio and New York. Bids are desired on paving work at St. Catharines, Ont. It is reported that Pendleton, Ore., will pave thirty-four blocks, bids to be asked in July. New York City will soon lay fourteen blocks of asphalt and granite pavement. East Orange, N. J., will spend $92,000 for road improvements, and Wilmington, Del., will soon call for bids on 110,000 sq. yd. of pavement. Paving bonds totaling $90,000 have been sold at Pittsburgh. Cleveland is considering building a $328,000 road. Bids are asked July 1 for a $400,000 road bond issue at Greenville, N. C.

Waterworks and Sewers

A contract for steel pipe to cost $38,000 has been awarded at Arcadia, Cal. Bids are desired for laying a 30-in. pipe line at Beaumont, Texas, and for building a reservoir and filtration plant at Port Henry, N. Y. Ashtabula, Ohio, is considering a $250,000 water system. Plans are being prepared for waterworks for the Iowa cities of Riverside and Keota. Improvements to cost $400,000, which include waterworks and a sewer system, are contemplated at Monroe, La. A filter plant proposed at Arkadelphia, Ark., will cost $75,000, and plans are being prepared for a $65,000 reservoir at Chariton, Iowa.

A sewer contract amounting to $105,000 has been awarded at Winnipeg, Man. Two sewer contracts awarded in San Francisco total $70,000. Contracts for a disposal plant and sewer system at Downington, Pa., have been awarded at $63,000. Bids are desired for constructing a sewer tunnel in Cleveland, and for sewer work to cost $110,000 at Watertown, S. D. An additional tax of $2,500,000, to complete the Cleveland sewage-disposal plants, will have to be voted next fall. A number of sewer bond issues will soon be put on the market. Among these are a $550,000 issue voted by Stockton, Cal., and a $200,000 issue to be sold June 29 at Milwaukee.

Miscellaneous

It is reported that a $500,000 power plant has been contracted for at Fremont, Ohio. A number of good sized levee contracts have been awarded at New Orleans. The lowest bid for the Thirtieth Street pier in Brooklyn was $196,000. A small railway contract, calling for 200,000 cu. yd. of grading, was let at Meridian, Miss. Bids are desired by the Public Service Commission in New York City for track laying on a long elevated line in Brooklyn. Bids are also wanted for 140 miles of ditch work at Rosseau, Minn., and for a garbage-disposal plant at East Chicago, Ind.

Prospects for railroad contractors seem to be brightening, judging from the number of contemplated extensions and new incorporations. A $1,500,000 extension is to be made at Portland, Ore., and it is reported from the same locality that the Southern Pacific Company will electrify 43 miles of line. It is reported from San Angelo, Texas, that an extension is contemplated by the Orient system. Another proposed extension is reported from Norfolk, Va. A $1,000,000 company has been incorporated to build a railroad near Roseburg, Ore., and a charter has been granted to a company at Charleston, S. C., that proposes constructing 85 miles of line. Bonds for $800,000 will be sold to eliminate grade crossings at Youngstown, Ohio. It is reported from Baltimore that the Pennsylvania Railroad is considering the construction of a $1,000,000 coal pier. The bill for constructing an 8-ft. channel to connect the Great Lakes with the Gulf of Mexico by joining the Chicago Drainage Canal and the Illinois River has been signed by the Governor of Illinois. Harbor improvements costing more than $200,000 are contemplated at Providence, R. I. It is reported that plans for eight municipal piers are being considered at Baltimore.

WATERWORKS

PROPOSED WORK.

Athol, Mass.—Herbert L. Hapgood, Chmn. Water Comrs., reported to favor constructing reservoir of 3,000,000 gals. capacity.

Lewiston, N. Y.—Election will probably be called soon to vote $39,000 bonds for fire protection and water supply system.

Lockport, N. Y.—Bd. Water Comrs. reported to have rejected all bids opened June 7 for a 10 and 12-in. water pipe on Market and Mill Sts.; lowest bidder $16,600. New bids will be called for. Wm. G. Spalding City Clk.

Oswego, N. Y.—Citizens voted June 16 to issue $35,000 bonds to extend and repair water works. J. F. Flanigan, City Engr.

Patchogue, L. I., N. Y.—Reported to be a movement on foot, looking to establishment of a fire district in West Patchogue. Walter E. Sexton, of Mineola, estimates cost at $60,000 for constructing municipal water works.

Hatfield, Pa.—Citizens voted $15,000 bonds June 9 for constructing water works. Engineer, Ralph Shafenecker, North Wales.

Contracting News

Of Special Interest to Engineers, Contractors, Builders and Manufacturers of Engineering and Building Supplies

City Point, Va.—City Point Water Co. reported formed with a capital of $50,000 to construct water works. Richd. Eppes, and Saml. W. Zimmer, both of Petersburg, among the incorporators.

Elberton, Ga.—City Council reported to have authorized purchase of electric pump at water works on Beaver Dam Creek.

Ft. Meade, Fla.—All bids opened June 15 for purchase of $58,000 bonds for water, sewer, street paving and electric lights, rejected. New bids to be received. J. J. Singleton, Secy. Bd. Bond Trus.

Monroe, La.—Walter G. Kirkpatrick, Birmingham, Ala., will report on condition of improvements for water, light and traction systems, also sewers and pavement, as basis for $400,000 bond issue. H. D. Apgar, Mayor.

Philadelphia, Miss.—Citizens voted $30,000 bonds June 11 to construct water works and sewer system. T. E. Peebles, City Clk.

Springfield, Tenn.—Plans being considered to enlarge municipal electric light and water plant and install additional machinery; cost about $15,000.

Ashtabula, O.—City Council considering issue of $250,000 bonds to construct water works.

Grafton, O.—C. J. Fitzgerald, of Elyria, reported interested in construction of water works.

Lima, O.—Special Com. appointed to study water question has filed report with Chamber of Commerce recommending new storage reservoir on Fetter site north of present Lake Lima.

Mancelona, Mich.—Citizens reported to have voted $15,000 bonds to construct water works.

Atkinson, Ill.—Plans being prepared by A. M. Morgan, Chicago, for water works, to cost $18,000.

Sparta, Ill.—W. McK. Brown, Room 300, Cahokia Bld., E. St. Louis, is in charge of proposed water works.

Warsaw, Ill.—Plans being prepared by A. M. Morgan, Chicago, for water works extension, to cost $19,000.

Madison, Wis.—Water Dept. considering expenditure of $10,000 for laying feeder mains.

Oshkosh, Wis.—City Council considering construction of filtration plant. Henry A. Allen, Consulting Engr., Chicago, Ill.

Chariton, Ia.—Plans being prepared by M. G. Hall, Centerville, for a reservoir, to cost $65,000. Fred J. Stewart, Resident Engr.

Ft. Dodge, Ia.—Petitions being circulated asking City Council to call election to vote $100,000 bonds for improvements to water works, construct dam and install electrical generating equipment to supply city with electricity.

Keota, Ia.—Plans being prepared by C. P. Chase, Clinton, for water works.

Riverside, Ia.—Plans being prepared by C. P. Chase, Clinton, for water works.

Lakefield, Minn.—Council considering calling election to issue $31,000 bonds for improvements and extensions to municipal electric light plant and waterworks.

Minneapolis, Minn. — Council Water Works Com. ordered water mains laid, at a cost of $28,225.

Oakley, Kan.—Citizens reported to have voted $10,000 bonds for improvements and extensions to municipal electric light plant and water works.

Solomon, Kan.—Proposed to construct water works, to cost $30,000. Engineers, Harper & Stiles, Kansas City, Mo. G. M. Spaulding, City Clk.

Fromberg, Mont.—Citizens voted $17,500 bonds for constructing water works. Engineer, B. T. Ellis, Billings.

Rockport, Mo.—City Clerk writes no bids yet received for constructing water works, as wells are not yet satisfactory.

Arkadelphia, Ark.—Arkansas Light & Power Co., considering construction of filter plant; cost about $75,000.

Marianna, Ark. — Arkansas Light & Water Co. reported to have purchased holdings of Marianna Electric Co. and municipal water works. It is said improvements will be made.

Columbus, Tex.—Citizens voted $9,000 bonds to extend and improve water works.

Aberdeen, Wash.—R. H. Thomson, of Seattle, reported engaged by City Council to investigate proposed Wynooche water system, which city contemplates developing for municipal water supply.

Pe Ell, Wash.—Washington Pipe & Fdry. Co., Tacoma, reported to have petitioned City Council for franchise to construct and maintain water works, to cost about $25,000.

Tacoma, Wash. — Metropolitan Park Comn., considering purchase and installation of 8,000 ft. 10-in. c. i. water pipe.

Florence, Ore.—Citizens voted $10,000 bonds June 8 to construct water works.

North Bend, Ore.—City Council considering acquiring water right on Pony Inlet watershed, with view to constructing municipal water works.

St. Maries, Idaho.—Plans being prepared for constructing water works; cost about $30,000. Chas. R. Schulte, City Clk.

Halifax, N. S.—Reported bonds for $181,000 will be sold June 25 by W. L. Brown, City Treas. and includes $25,000 extension to water system, $60,000 sewer extension, $15,000 and permanent sidewalks.

BIDS DESIRED.

Port Henry, N. Y.—Until July 7 by A. C. Lindin, Vilage Clk. for instaling reservoir and filtration plant, advertised in Engineering Record. Mortimer Y. Ferris, Engr., Ticonderoga.

New York, N. Y.—Until July 7 by Bd. Water Supply (W. Bruce Cobb, Secy.), for Contract 140—drainage equipment for unwatering city tunnel of the Catskil Aqueduct and shafts 11 and 12.

Saltsburg, Pa.—Until July 12 by Robt. H. Wilson, Chmn. Water Com. for one water works pump 500,000 gals. capacity in 24 hrs.

Pensacola, Fla.—See "Public Buildings."

Steel Pipe, Etc. for Tunnel Work, Cleveland, O.—Until June 30 by Commissioner Purchase & Supplies, for galvanized steel pipe, two 5-ton gasoline locomotives and wrought steel pipe for West Side Tunnel extension, Dept. Pub. Utilities, Div. Water.

Chicago, Ill.—By W. R. Moorehouse, Comr. Pub. Wks., for following:

Until July 1 for non-conducting covering in water-supply pumping station and shops.

Until July 8 for furnishing at the Central Ave. pumping station 5 water-tube boilers with superheaters, furnaces and mechanical stokers; steam pressure 170 lbs. per sq. in.; normal capacity of each boiler 20,000 lbs. of steam per hr.

Kohler, Wis.—Reported desired until June 30 by Village Bd. (Henry Schumann, Clk.), for water works system. Jerry Donohue, Engr., in Charge, Sheboygan.

Thief River Falls, Minn.—Until July 6 by E. J. Overland, City Clk., for furnishing f. o. b. 8064 lin. ft. 6 in. standard c. i. mains, 13 hydrants, 7 6-in gate valves, tees, etc., also separate bids for constructing water works.

Pratt, Kan.—Until June 30 by W. O. Humphreys, Mayor, for improvements to water works, including pipe line material f.o.b. cars, installation of pipe line, relaying old material, wells and suction lines, 700 g. p. m. tripiex pump, venturi meter and station piping; pump house building.

Canova, S. D.—Reported desired by H. H. Schulte, Town Clk., as follows: Until June 28 for well; until July 7 for general contract for water works.

Powell, Wyo.—Until July 6 by W. A. Deming, Town Clk., for constructing gravity water system to include 7 miles supply line 10-in., 50,000 gal. tank, 3½ miles distribution, 1 filter near intake. Engineer, G. H. Setham, Denver.

Beaumont, Tex.—Until July 14 by J. G. Sutton, City Secy., for furnishing material and laying a 30-in. pipe line across Neches River, constructing canal intake and other improvements in connection with canal extension for system. Burns & McDonnell, Engrs., Scarritt Bldg., Kansas City, Mo.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Troy, N. H.**—Contract for constructing water works awarded to Pascal C. Rici, Rutland, as follows: 6000 ft. 12-in. wood stave pipe, 23 cts.; 8000 ft. 10-in., 23 cts.; 1800 ft. 10-in. c.-i. pipe, 25 cts.; 1700 ft. 8-in., 24 cts.; 1800 ft. 6-in., 22 cts.; 600 cu. yds. earth excav., 70 cts.; 70 cu. yds. concrete in dam, $9; 300 cu. yds. earth grubbing in dam, 50 cts.; gate house, $150; set hydrants, ea., $2; set gate, ea., $1; 300 cu. yds. rock excav., $4.50; total, $10,689. Next 3 lowest bids: Sousi & Williams, Boston, Mass., $11,119; G. Ferullo, Boston, Mass., $11,756; John E. Palmer, Boston, Mass., $12,678. Engineer, A. W. Dudley, Manchester.

★**Dartmouth, Mass.**—Contract awarded to A. Williams & Co., 3 Cotting St., Boston, to furnish and lay 6 to 8-in. water pipe, at $33,153.

New York, N. Y.—Following are unofficial totals of lowest bids opened June 22 by Bd. Water Supply, Municipal Bldg., for Contract 106 and 159 (not yet awarded):

Contract 106, furnish and install bronze or steel ladders, nozzles, etc., (two bidders). Chas. Meads, 38 Park Row, $19,640; Concord Constr. Co., Brooklyn, $21,025.

Contract 159, constructing coagulation plant in Mt. Pleasant: Guarantee Constr. Co., 140 Cedar St., $21,480; H. H. Vought & Co., Grand Central Terminal, $21,871. Chas. Meads & Co., $27,117; Fredk. M. Lewis, 411 Manhattan Ave., $27,150.

★**Frederick, Md.**—Contracts awarded by Bd. of Aldermen for pipe line from Fishing Creek to city as folows: To Brady Bros., Frostburg, excav. and laying, $4,152; H. C. Brooks, Martinsburg, W. Va., to furnish pipe, $11,304, and R. D. Wood & Co., Philadelphia, for valves, $402.

★**Cleveland, O.**—Contract awarded by Bd. of Control to Cleveland Macadam Co., for filter sand and gravel for Division Ave. filtration plant, at $20,450.

Chicago, Ill.—Following lowest bids opened by Bd. Pub. Wks.: June 17 for two 3,000,000 gal. centrifugal pumps, United Eng. Co., Chicago, $3,979; June 18 for gate valves, Pratt & Cady, Hartford, Conn., $3,000.

★**Fond du Las, Wis.**—Contract reported awarded to American Cast Iron Pipe Co., Minneapolis, Minn., for c. i. water pipe at $16,000.

★**Arcadia, Cal.** — Contract reported awarded to Lacy Mfg. Co., Washington Bldg., Los Angeles, to furnish and install riveted steel pipe in municipal water works at $38,141.

★**Salt Lake City, Utah**—Contract for constructing 5,000,000 gal. concrete reservoir (bids opened June 16) awarded to P. J. Moran, Contr. Inc., at $18,209 to complete in 110 days. Next 3 lowest bids: J. W. Mellen, Salt Lake City, $18,285; John Holt, Salt Lake City, $18,975; Mullins & Palm, Salt Lake City, $19,361. K. A. Scheid, City Recorder.

SEWERAGE AND SEWAGE DISPOSAL

PROPOSED WORK.

Pittsfield, Mass.—Bd. Aldermen passed ordinances appropriating $25,000 for extension of sewers in South St. and $40,000 for additional sewage filtration beds.

Westfield, Mass.—Sewer bonds for $12,000 reported sold.

Woonsocket, R. I.—New sewers to be constructed in several streets, to cost $23,000. F. A. Mills, City Engr.

New Haven, Conn.—Mayor Rice has been asked to approve order passed by Bd. of Aldermen for $110,000 bonds for Whalley Ave. sewer, which will provide outlet for sewer system to be constructed in Westville School Dist.

Buffalo, N. Y.—City Council ordered construction of a 15-in. tile sewer in Northumberland St.

City Council decided to construct 15-in. tile sewers in Market St. and Northumberland Ave.

Herkimer, N. Y.—Bonds for $30,000 reported sold to extend sewer system.

Syracuse, N. Y.—G. D. Holmes, Ch. Engr., Intercepting Sewer Bd., writes that bids will probably be called for in July for sewer extension and drainage ditch for Northeast Section of city, to cost about $50,000; this is the storm water outlet for the Huntley Tract system.

Ft. Meade, Fla.—See "Water Works."

Hammond, La.—Bonds for $40,000 for sewerage will be sold June 26 by T. R. Thames, Comr. Finance.

Monroe, La.—See "Water Works."

Philadelphia, Miss. — See "Water Works."

Cleveland, Tenn.—Walter G. Kirkpatrick, of Birmingham, Ala., engaged to prepare plans and supervise construction of proposed sewer system; to cost $75,000. Bids for bonds opened June 17 have been rejected, and new bids will be received. C. A. Mee, Mayor.

Cleveland, O.—Voters this fall will be asked to approve an additional tax to pay interest upon bonds issued for building sewage disposal plants. Three disposal plants are to be built at an estimated cost of $3,859,000. About $1,352,000 has already been spent on the work.

Columbus, O.—Bd. Pub. Service about to let contract for enlarging sewage disposal plant.

Geneva, O.—City Engineer reported to be preparing plans for the Baline and Orchard St. sewer.

Markle, Ind.—Plans reported completed by Thos. Ruggles, for construction of sewer system.

Chicago, Ill.—Sanitary Dist. of Chicago on June 21 instructed its Counsel and Eng. Com. to proceed immediately in cooperation with city for abatement of Bubbly Creek nuisance. An ordinance was passed prohibiting discharge of industrial sewage containing garbage, ashes, miscellaneous wastes and solids into main channel or tributaries; also an ordinance permitting filling of creek by Sanitary Dist. and putting sewage into an intercepter.

Warsaw, Ill.—Plans being prepared by A. M. Morgan, Chicago, for sewer system, to cost $28,500.

Wenona, Ill.—We are informed that contract will not be let until August for constructing 5 miles sewers and septic tank. Melluish & Broyhill, Engrs., Bloomington.

Milwaukee, Wis.—Reported bonds for $200,000 for general sewer work will be sold June 29 by Bd. Public Debt.

Keokuk, Ia.—City Council considering construction of sanitary sewers in Kilbourne's addition.

Watertown, S. D.—F. W. Shreiber, City Engr., writes bids for construction will probably be received in July for 18,500 ft. 15, 18, 30 and 33-in. pipe sewers and 9700 ft. 36, 42, and 57-in concrete sewers; total cost $110,000. O. M. Lane, City Aud.

Walkerville, Mont.—Preliminary plans prepared for sewer system; cost about $25,000.

Beeville, Tex.—City Comn. will soon call election to issue $15,000 bonds to extend sewer system. W. Ranney, Engr., San Antonio.

Trinidad, Colo.—Bonds for $75,000 to $100,000 will soon be sold, to be used for construction of trunk sewers and disposal plant.

Pullman, Wash.—Council considering improvement of alley through Blocks 4, 5 and 6, College Park Addition, by construction of trunk sewers, sub-sewers and lateral sewers; cost about $10,000.

Seattle, Wash.—L. B. Young, Chmn. Bd. Pub. Wks., approved plans for sewers in Fairmount Ave. and other streets, to cost $50,000.

Albany, Ore.—City Council decided to construct main trunk sewer south along Cottage and Tekena Sts.; cost, $10,000.

Beaverton, Ore.—Louis C. Kelsey, Selling Bldg., Portland, preparing plans for sewer system; cost $25,000.

Imperial, Cal.—City Clerk writes bonds will be sold July 14, to be used for constructing 179,280 ft. 33-in. pipe or cement sewers.

Stockton, Cal.—Citizens voted $200,000 bonds June 15 for storm sewers and $350,000 for sanitary sewers.

Mesa, Ariz.—Bonds for $75,000 for sewer system and disposal plant, reported will be sold June 30 by Common Council. Harry Hancock Phoenix, Engr.

Halifax, N. S.—See "Water Works."

Vancouver, B. C.—City Council considering construction of sewers in 20th St., to cost $20,000; 19th Ave., cost $14,500; Victoria Drive, cost $12,000, and 14th St., cost $16,000.

BIDS DESIRED.

Portland, Me.—Until July 6 by Bd. Pub. Wks. (Bion Bradley, Jr., Comr.) for 3710 ft. 8, 10 and 12-in. pipe sewers; cost $18,000.

Boston, Mass.—Until June 29 by Patk. O'Hearn, Acting Comr. Pub. Wks., for constructing pipe sewers and drains in Prince St., West Roxbury, Richfield and Westwood Sts., Dorchester, and Alleys Nos. 903 and 904 and outlet in Bickerstaff St., Roxbury.

Syracuse, N. Y.—Until July 12 for constructing a system of sewers in northern part of city known as Huntley System No. 2, consisting of separate system, the storm sewers (brick or concrete) ranging from 66 to 15 in. (pipe) and sanitary sewers ranging from 22 to 8 in., with necessary manholes, etc. Estimated cost, including inspection, $112,000. M. B. Palmer, Deputy City Engr.

Avalon, N. J.—Until July 12 by Gilbert S. Smith, Mayor for about 14,000 lin. ft. c.-i. or vitr. pipe sewers, 12 to 20 in., together with manholes, centrifugal pumps, gasoline engines, sedimentation tanks, chlorine appliances, and other appurtenances, advertised in Engineering Record. Ralph L. Goff, Engr., Ocean City.

Madisonville, Ky.—Until July 1 by Bd. Pub. Wks. (W. J. Dulin, Secy.) for constructing 8,666 ft. sanitary sewers.

Cleveland, O.—Until July 7 by A. R. Callow, Comr. Purchase & Supplies, for constructing under 2 contracts, in tunnel, approximately 7,500 lin. ft. 6 ft. circular brick sewer, advertised in Engineering Record.

Columbus, O.—Until June 29 by Geo. A. Borden, Dir. Pub. Service for converting septic tanks into settling tanks of Imhoff type and constructing new sludge drying beds at Sewage Treatment Wks., adjacent to Scioto River, Franklin Township, Contract 28.

Chicago, Ill.—Until July 2 by Bd. Local Improv. (Edw. J. Glacklin, Secy.) for constructing drains in various streets.

East St. Louis, Ill.—Reported desired until July 7 by G. L. Tarlton, Pres. Bd. Trus. for constructing an outlet sewer protection at Station No. 866 of Construction Project No. 7, Sect. B of Sect. 6 from levee.

Gibson City, Ill.—Until July 1 by Comrs. Sangamon and Drummer Drainage Dist. at office of Phillips & Swanson, Gibson City, for constructing covered drains, about 12,928 ft. and 2 laterals about 3304 ft. 38, 40 and 45 in. segment block sewer pipe, 9312 ft. 22, 24, 26, 27, 28 and 32 in. standard vitr. sewer pipe, 120 ft. 32 and 38 in. light weight c. i. pipe, etc.

Peoria, Ill.—Until July 12 by Bd. Local Improv. (Sherman W. Eckley, Pres.) for constructing South End Sewer, East Section, advertised in Engineering Record. Cost $221,279.

Elroy, Wis.—Until July 6 by Wm. Flood, City Clk. for 1140 ft. 10 and 857 ft. 8 in. vitr. pipe sewers, 6 manholes, etc. 1 concrete bulkhead. W. G. Kirchoffer, Engr., Madison.

Kohler, Wis.—Reported desired until June 30 by Village Bd. (Henry Schumann, Clk.), for sanitary sewer and storm drainage system. Jerry Donohue, Engr. in Charge, Sheboygan.

Sheboygan, Wis.—Until July 2 by Bd. Pub. Wks. (C. U. Boley, Chmn.) for 12,055 ft. 12, 10 and 8-in vitr. pipe sewers, 58 manholes, etc., advertised in Engineering Record.

Hamilton, Ont.—See "Public Buildings."

PRICES AND LETTINGS.

★*Indicates award of contract.*

Greenwich, Conn.—Following are four lowest bids opened June 14 by Sewer Comrs. for constructing sewers in East Port Chester, Sewer Dist. No. 9: Lincoln-Steele-Fleming & Co., & Jos. A. Morrison Assoc., 17 Madison Ave., New York, $23,999 (lowest bidder); Fred E. Gross & Son, Yonkers, N. Y., $24,409; Daly & Merritt, Port Chester, N. Y., $28,203; W. T. Ryan Constr. Co., 129 Barker St., Hartford, $29,794.

Unit prices of lowest bidder:

Tile Sewers

14764	lin. ft. 8-in., cut 0-8 ft.	$0.60
3645	lin. ft. 8-in., cut 8-10 ft.	0.83
825	lin. ft. 8-in., cut 10-12 ft.	0.94
400	lin. ft. 8-in., cut 12-14 ft.	1.27
375	lin. ft. 8-in., cut 14-16 ft.	1.52
50	lin. ft. 8-in., cut 16-18 ft.	1.85
50	lin. ft. 8-in., cut 18-20 ft.	2.24
100	lin. fe. 10-in., cut 0-8 ft.	0.69
150	lin. ft. 10-in., cut 8-10 ft.	0.90
610	lin. ft. 10-in., cut 10-12 ft.	1.02
200	lin. ft. 10-in., cut 12-14 ft.	1.35
635	lin. ft. 10-in., cut 14-16 ft.	1.60
70	lin. ft. 10-in., cut 16-18 ft.	2.02
300	lin. ft. 12-in., cut 0-8 ft.	0.78
50	lin. ft. 12-in., cut 8-10 ft.	1.00
100	lin. ft. 12-in., cut 10-12 ft.	1.12
216	lin. ft. 12-in., cut 12-14 ft.	1.45
50	lin. ft. 15-in. tile, cut 0-8 ft.	0.95
150	lin. ft. 8-in. c.-i. pipe, cut 0-8 ft.	0.90
250	lin. ft. 10-in. c.-i. pipe, cut 0-8 ft.	1.12
1200	lin. ft. 12-in. c.i. pipe, cut 0-8 ft.	1.44
658	8x5-in. tile Y branches, each	0.30
80	10x5-in. tile Y branches, each	0.42
21	12x5-in. tile Y branches, each	0.51
3	8x6-in. c.-i. Y branches, each	3.00
5	10x6-in. c.-i. Y branches, each	4.00
23	12x6-in. c.-i. Y branches, each	5.00
110	manholes, cut 0-8 ft.	37.00
108	ft. manholes, extra depth over 8 ft.	4.15
	5-in. house connections, per vert. ft.	0.20

★**Beaver Falls, Pa.**—Contract awarded for constructing sewage disposal plant (bids opened June 8) to Pihl & Miller, Pittsburgh, at following bid: tanks, $14,-900; sludge beds, $960; sterilizing equipment, $866; pump and engine, $920; piping, $2,220; total, $19,800. Engr., Leo Hudson, House Bldg., Pittsburgh.

Downingtown, Pa.—Bids were opened June 7 by Borough Council for sewage disposal works and sewer system, about 7 miles 8 to 18 in., from plans of Herbert W. Hatton, Wilmington, Del., and following are lowest bids received:

★Sewage Disposal Plant: Pollock & Lewis, Downingtown, $35,900 (awarded contract); Cantrell Constr. Co., Philadelphia, $38,730; Fred E. Gross, Yonkers, N. Y., $39,500; Edw. H. Vare, 1120 Race St., Philadelphia, $40,000.

★Sewer System: Geo. C. Souder, Lancaster, $27,231 (awarded contract); Martin, Miller & Pizzimeenti, Caldwell, $31,-923; Frank X. Hinden, Lancaster, $32,080; M. & T. E. Ferrell, West Chester, $32,972.

Unit prices of Geo. E. Souder, successful bidder for sewer system:

Terra Cotta Pipe Sewers.	
18-in., 0 to 4 ft. deep	$0.72
618 ft. 18-in., 4 to 6 ft. deep	0.79
700 ft. 18-in., 6 to 8 ft deep	0.88
1500 ft. 18-in., 8 to 10 ft. deep	0.98
1500 ft. 15-in., 4 to 6 ft. deep	0.60
490 ft. 15-in., 6 to 8 ft. deep	0.69
15-in., 8 to 10 ft. deep	0.78
15-in., 10 to 12 ft. deep	1.02
12-in., 0 to 4 ft. deep	0.43
1070 ft. 12-in., 4 to 6 ft. deep	0.44
12-in., 6 to 8 ft. deep	0.53
460 ft. 12-in., 8 to 10 ft. deep	0.63
12-in., 10 to 12 ft. deep	0.85
12-in., 12 to 15 ft. deep	1.10
3290 ft. 10-in., 4 to 6 ft. deep	0.40
110 ft. 10-in., 6 to 8 ft. deep	0.48
10-in., 8 to 10 ft. deep	0.58
10-in., 10 to 12 ft. deep	0.81
10-in., 12 to 15 ft. deep	1.05
19,632 ft. 8-in., 4 to 6 ft. deep	0.33
12,657 ft. 8-in., 6 to 8 ft. deep	0.41
1973 ft. 8-in., 8 to 10 ft. deep	0.52
300 ft. 8-in., 10 to 12 ft. deep	0.75
8-in., 12 to 14 ft. deep	1.00
Y-Branches.	
2 18-in.	1.20
2 15-in.	1.00
4 12-in.	0.75
20 10-in.	0.60
1025 8-in.	0.44
11 lampholes	10.30
144 plain manholes	35.50
1 flush manhole	50.00
Drop manhole	38.00
5 catch buckets	4.80
7 flush tanks	88.00
5 ft. house connections	0.50
C. I. Pipe	
196 ft. 8-in., 4 to 6 ft. deep	1.47
108 ft. 8-in., 6 to 8 ft. deep	1.55
416 ft. 12-in., 4 to 6 ft. deep	2.14
15-in.	2.40
192 ft. 18-in., 4 to 6 ft. deep	3.29

Montrose, Pa.—Lowest bid opened June 10 submitted by N. Y. Sewage Disposal Co., 37 E. 28th St., New York, at $2,056 for vitr. pipe sewers and $7,063 for disposal plant.

★**Cleveland, O.**—Contracts awarded by Bd. of Control for sewers as follows: To Wm. McDowell & Son Co., at $17,000 for sewer in Spring Rd. S. W.; J. C. Devine Co., at $9,500 for diversion sewer, junction and overflow chambers, screen and grit chambers and wooden flumes at sewage treatment works, W. 58th St. and lake shore; to Lake Erie Paving & Constr. Co., at $17,697 for sewer in Sandusky Ave. S. E. (E. 93rd St.—E. 102d St.).

★**Findlay, O.**—Contract for constructing 2500 ft. 72 in. segment block sewer awarded to S. Renick, of Findlay, at $8 per lin. ft.; 100 cu. yds. extra concrete, $6; timber retained in trench, $35 per M. ft. H. A. Glathart, City Engr.

★**West Allis, Wis.**—Contract reported awarded by Bd. Pub. Wks. for sewers, including 1000 ft. 42 in. concrete segment block, to Public Service Co., Omaha, Neb., at $8,071.

★**Hartley, Ia.**—Contract awarded by City Council for constructing sewer system to Arthur A. Dodson & Co., Lincoln, Neb., at about $19,000.

★**Lake Mills, Ia.**—Following are bids opened June 14 for constructing system sanitary sewers and disposal pant from plans of M. Techirgi & Sons, American Trust Bank Bldg., Cedar Rapids: W. F. Riley, St. Louis, Mo., $23,306 (awarded contract); Moore-Sieg Co., Waterloo, $27,012; Cedar Rapids Contr. Co., Cedar Rapids, $27,831; M. S. Jackson, Cedar Rapids, $28,707; Engr.'s estimate $27,712.

★Unit prices of W. F. Riley, successful bidder:

3570 ft. 6-in. sewer	$0.38
9580 ft. 8-in. sewer	0.50
4060 ft. 10-in. sewer	0.60
32 manholes, each	35.00
5 flush tanks, each	60.00
3 double flush tanks, each	70.00
2000 lb. bitumen in joints, per lb.	0.08
Settling tank (lump sum)	2800.00
Filter area (lump sum)	900.00
1 inlet M. H.	50.00
24 ft. 10-in c. i. pipe	2.00
1190 ft. 15-in. sewer	1.50
2070 ft. 12-in. sewer	1.40
4780 ft. 10-in. sewer	0.70
660 ft. 6-in. sewer	0.35
21 manholes, each	35.00
1 flush tank	60.00
1000 lbs. bitumen in joints, per lb.	0.08

★**Mt. Ayr, Ia.**—Bids opened June 3 for construction of sewers from plans of E. T. Archer & Co., Kansas City, Mo., and contract awarded to Matthews Constr. Co., Kansas City, Mo., at following bid: **Trunk sewer:** Trench and backfill, 15 cts. to 75 cts., according to depth; 8 and 10-in. pipe, 21 cts. per ft.; Y branches, 25 cts. and 35 cts.; manholes, $26 and $30 with $2.25 per ft. extra depth; disposal plant about $1,500; total, including other miscellaneous material, $14,081. **Lateral sewers:** trench and backfill, 15 cts. to 70 cts., according to depth; 6-in. pipe, 14 cts, and 8-in., 17.5 cts.; Y branches, 15 cts. and 25 cts.; flush tank, $60; manholes, $27.50 and $40; lampholes, $750; total, $17,991.

★**Tripoli, Ia.**—Contract reported awarded for constructing sewer system to Cedar Rapids Constr. Co., Cedar Rapids, at $20,728.

★**Bismarck, N. D.**—Contract reported awarded to Haggart Constr. Co., Fargo, for 4 blocks of sewer at $15,107. Other bids: M. P. Moore, Bismarck, $17,035; Grambs & Peet Co., Bismarck, $18,429; Grand Forks Concrete Co., $15,987.

Sisseton, S. D.—Following totals of 4 lowest bids opened June 15 for constructing sewer system and treatment plant from plans of Dakota Eng. Co., Mitchell: E. M. Scheflow, Elgin, Ill., $24,804; H. J. Cathroe, Omaha, $28,750; Jas. Kennedy, Fargo, N. D., $29,744; Security Bridge Co., Billings, Mont., $29,768. Work includes: 6330 ft. 15-in.; 180 ft. 12-in.; 3245 ft. 10-in., 20,346 ft. 8-in.; 78 manholes; 7 flush tanks; 6 lampholes; treatment plant, sludge bed and outlet bulkhead.

Whitehall, Mont.—The proposed sewer system will cost about $14,000 and will include 2 miles of 10, 8 and 6-in. pipe sewer, disposal plant Imhoff type. Bids for bonds to be received in August. Geo. E. Baker, City Engr.

★**Chehalis, Wash.**—Contract to construct trunk sewer (bids opened June 7) awarded to Hurd & De Camp, of Spokane, at $17,575. Next 3 lowest bids: K. Sauset, Bellingham, $18,737; E. M. More, Tacoma, $20,575; Pacific Sewer & Water Main Constr. Co., Tacoma, $21,-775. D. W. Boone, City Clk.

★**Port Angeles, Wash.**—Contract reported awarded to Metler & Coyne, Port Angeles, to construct sewer system at $37,804.

★**North Bend, Ore.**—Contract for constructing sewer system, awarded to Edw. Sandeberg, Portland, at $16,439. (Bids opened June 8). Next 3 lowest bids: Jas. Kennedy, Portland, $17,029; Tibbetts-Pacific Co., San Francisco, Cal., $17,222; C. G. Randles, Portland, $19,125. C. E. Maybee, City Recorder.

★**San Francisco, Cal.**—Contract for constructing sewer and appurtenances in 5th St., Howard to Brannon Sts. reported awarded to Healy-Tibbitts Co., at $59,237; paving and building sewer in 44th Ave. bet. Judah and Kirkham, to J. F. Dowling, $10,734.

★**Winnipeg, Man.**—Contract reported awarded to Thos. Jackson & Sons, to construct 2 sections of Jefferson Ave. sewer at $105,727. This will complete the sewer from Aitkens St. to Sinclair. Contract for the 3d section not yet let.

BRIDGES

PROPOSED WORK.

Boston, Mass.—Boston Elevated Ry. Co. contemplates constructing railway bridge across Mystic River.

Woonsocket, R. I.—City will construct 2 concrete bridges on Clinton St.; cost $9,000

Bridgeport, Conn.—Citizens voted June 20 to issue bonds for construction of bridges at East Washington Ave. and Grand St.

Mohawk, N. Y.—Citizens voted to construct 9 concrete bridges along Paines Hollow Rd.

Utica, N. Y.—Council voted to construct bridge over Mohawk River, also temporary foot bridge at N. Genesee St., and a temporary bridge at Miller Rd.

Bloomingdale, N. J. — Lowest bid opened for constructing bridge between Butler and Bloomingdale that of Logan Constr. Co., at $7,000. Passaic and Morris Counties to share cost.

Freeho'd, N. J.—Contract about to be let by Bd. Freeholders for constructing Strauss Bascule lift bridge over Matawan Creek on Keyport—South Amboy Rd.

Petersburg, Va.—R. D. Dudd, City Engr., writes plans have not yet been approved for bridge proposed over Appomattox River to connect Petersburg with Chesterfield County. Work will probably not be started this year.

Ft. Myers, Fla.—Bonds for $177,500 for Special Road and Bridge Dist. No. 1 will be sold July 5 by Co. Comrs. (H. A. Hendry, Clk.).

Knoxville, Tenn.—About $21,700 is to be spent by county for repairs to bridges.

Indianapolis, Ind.—Bd. Public Works approved plans of Vandalia R.R. Co. for extending Vincennes and St. Louis Division Bridges across White River.

Houghton, Mich.—Contract about to be let by Duluth, South Shore & Atlantic Ry. Co. for steel superstructure and approaches to Portage Lake Bridge. (E. R. Lewis, Engr., Bridge Dept., Duluth, Minn.)

Des Moines, Ia.—Plans being prepared for bridge over Des Moines River at University Ave.; probably reinforced concrete, spandrel span. Horace Susong, City Clk.

Sioux City, Ia.—City Council contemplates constructing concrete bridge over Sioux River at North Riverside.

Kansas City, Mo.—City Comrs. approved plans for 18th St. Viaduct, to be constructed over tracks Union Pacific and Chicago, Rock Island & Pacific R. R.; cost $136,000.

St. Louis, Mo.—Missouri Pacific R. R. Co. (J. R. Stephens, Ch. Engr., St. Louis) and Frisco R. R. Co. voted to construct viaduct 80 ft. wide over tracks at Chouteau Ave.

Ft. Worth, Tex.—About $8,000 will be spent by Comrs. Court, Tarrant County, for rebuilding Park St. Bridge.

Seattle, Wash.—Bd. Pub. Wks. L. B. Young, Chrmn., instructed City Engineering Dept. to begin construction, by day labor, on approaches of Salmon Bay Bridge across Lake Washington Canal. Council appropriated $90,000 to cover cost of work.

Portland, Ore.—City Engineer directed to prepare plans for constructing Union Ave. viaduct over tracks of Oregon-Washington R. R. & Navigation Co., cost about $50,000.

Meridian, Cal.—Contract soon to be let by Northern Electric Ry. Co. (W. A. McGovern, Gen. Mgr., Sacramento), for repairs to bridge over Sacramento River at Meridian.

Florence, Ariz.—Two concrete bridges proposed, to cost $60,000. Address E. S. Stafford, Co. Engr.

Challis, Idaho.—Citizens of Custer County voted to issue $35,000 bonds for constructing 5 steel bridges.

Lansing, Ont.—York Township Council considering plans to construct a concrete bridge on Lansing Side Rd.; cost about $5,000.

BIDS DESIRED.

Springfield, Mass.—Until July 1 by Bd. Superv. for painting North End Bridge over Connecticut River between Springfield and West Springfield. F. H. Clark, Supt. Streets & Engineering.

Until July 8 by City Clerk, addressed to Bd. Superv., for constructing Plainfield St. Bridge, advertised in Engineering Record. F. H. Clark, Supt. Streets and Engineering.

Pine Brook, N. J.—Reported desired until June 28 by Bd. Freeholders, Morris and Essex Counties, at Court House, Morristown, for rebuilding bridge over Passaic River at Pine Brook, between the two counties. Wm. E. King, Engr., Morris County.

Philadelphia, Pa.—Until July 8 by M. L. Cooke, Dir. Dept. Pub. Wks., for constructing 3 bridges, one each at 5th and 3d Sts. and Fisher Ave., advertised in Engineering Record.

Sunbury, Pa.—Reported desired until June 28 by Aaron Raker, Compt. for reinforced concrete bridge over Kapps Hollow Run in Point Township.

Lewisburg, W. Va.—Reported desired until July 6 by Job. S. Crawford, Clk. County Court, for constructing 3 concrete or steel bridges, two 20 ft. and one 16 ft. span.

Milton, W. Va.—Reported desired until July 6 by R. S. Douthat, Co. Clk., Huntington, for concrete work for bridge over Chesapeake & Ohio Ry. Co.'s right of way at west end of old bridge across Mud River at Milton. Oliver & Maupin, Engrs., Huntington.

Lake Charles, La.—Reported desired until July 1 by Police Jury, for constructing reinforced concrete bridge; cost $100,000.

Gulfport, Miss.—Until July 5 by John J. Murphy, Clk. Bd. Superv. for constructing Rutland Bridge across Big Bilexi River near Wortham on public Road from Gulfport to Bend.

Frankfort, Ky.—Until July 6 by County Clerk for constructing a 70-ft. steel bridge, 16 ft. wide, f.o.b. Paducah. Plans at office of Comr. of Public Roads, Frankfort.

Canton, O.—Until July 7 by C. L. Stoner, Co. Clk., for constructing foot bridge over Nimishillon Creek at 16th St. requiring 18,200 lbs. structural steel in the superstructure 1476 lbs. reinforced steel, concrete masonry, etc.

Cincinnati, O.—Until July 1 by Philip Fosdick, Dir. Dept. Pub. Service, for reconstructing 4 existing bridges in Sedamsville.

Norwalk, O.—Reported desired until June 6 by Chas. E. Bloomer, Co. Clk., for concrete substructure and superstructure for Hurst Bridge on Townsend Township.

Indiana.—Until July 6 at Fowler for constructing 3 concrete bridges. W. Mankey, Co. Aud.

Lansing, Mich.—Until July 9 by Frank F. Rogers, State Highway Comr., for constructing trunk line bridges, advertised in Engineering Record.

Clinton, Ill.—Reported desired until June 30 by County Clerk for constructing reinforced concrete bridge in Sect. 24 of Harp Township, Dewitt County, on Clinton and DeWitt Road. Melvin Tuggle, Co. Supt. Highways.

Highland Park, Ill.—See "Paving and Roads."

Illinois.—Until June 30 by State Highway Comn., Springfield, for following proposed State aid bridge work. All cement furnished by State, except noted as follows: * no material furnished by State; ** contains structural steel work; no material furnished by State:

County.	Section.	Cu. Yds.	Estimated Cost
Perry	A	293.5	$5,100**
Putnam	A	217.1	3,311*
Putnam	B	232.8	3,104*
Saline	B	119.5	1,740*
Stark	B	543.8	6,415*
Stark	C	457.9	5,910*
Stephenson	B	172.2	2,145*
Mercer	C	373.7	5,160*
Mercer	D	208.8	8,035**
Mercer	E	280.3	4,645*
Montgomery	A	402.5	5,110*
Montgomery	B	353.9	4,890*
Jersey	B	109.2	1,100*
Fulton	D	94.8	2,700**
Fulton	E	145.3	1,934*
Greene	A	317.6	5,265**
Hamilton	A	335.8	4,278*
Hamilton	B	299.4	4,125*
Cumberland	A	169.9	2,173*
Cumberland	B	175.8	2,335*
Washington	A	264.5	3,600*
Wayne	A	308.0	4,132*
Wayne	B	323.7	4,383*
Woodford	B	114.3	1,536*

Illinois—Until June 30 by State Highway Dept., Springfield, for constructing steel bridge in Bernadotte Township, Fulton County, span 155½-ft. roadway 18 ft.; cost $5,280. E. F. Metsinger, Co. Supt. Highways, Canton.

Cannon Falls, Minn.—Reported desired until July 2 by Geo. Wilson, City Clk., for 2 reinforced concrete bridges, one over Little Cannon on Mill St., consisting of three 60 ft. arch spans and the other across Big Cannon at Goodhue Mills, two 70 ft. girder spans. L. P. Wolff, Engr., St. Paul, Minn.

Hartland, Minn.—Until July 12 by Fred. Tavis, Co. Aud., Albert Lea, for constructing State Bridge 1814, about 3½ miles southeast of Hartland, including removal of present bridge and maintenance of temporary crossing. Bridge to be 15 ft. beam span on reinforced concrete abutments and concrete floor.

Bismarck, N. D.—Reported desired until July 8 by T. E. Flaherty, Co. Clk., for constructing 7 reinforced concrete culverts.

Jamestown, N. D.—Reported desired until July 8 by And. Blewitt, Co. Clk., for constructing reinforced concrete culverts.

Williston, N. D.—Until July 15 by M. H. Aaon, Co. Aud. for constructing bridges for period of 1 year.

LaJunta, Colo.—Until July 6 by Co. Comrs. for reinforced concrete bridge over Anderson Arroyo of 5th St., in La Junta including removal of present bridge, one 75-ft. arch or two 50-ft. arches. Geo. McCauley, Co. Clk.; Mark Denson, Co. Engr., Rockyford.

Seattle, Wash.—Until July 12 by Co. Comrs. (Byron Phelps, Aud.) for constructing Fall City Bridge, steel concrete piers; cost $27,000.

Hanford, Cal.—Reported desired until July 6 by Clerk Bd. Superv. for reinforced concrete bridge over Cross Creek.

San Jose, Cal.—Until July 6 by Bd. Superv. (Henry A. Pfister, Clk.), for constructing a reinforced concrete bridge on Fremont Ave. over Permanent Creek; also on Homestead Road over Calabasa and Sam Thomas Creeks.

North Timiskaming, Que.—Until July 12 by R. C. Desrochers, Secy. Dept. Pub. Wks., Ottawa, Ont., for superstructure of bridge, consisting of 4 spans, over Quinze River.

Brantford, Ont.—Until June 30 by County Clerk, for steel superstructures for Fairchild and Manwaring Creek Bridges, each 60 ft. clear waterway, and reinforced concrete abutments for Fairchild Creek and Manwaring Creek bridges. Alan Mair, Jackson, Co. Engr.

Siam—By Siamese Royal Railway Department for 3 steel viaducts. Specifications, etc., may be had from Siamese Legation, Gloucester, Mass.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Philadelphia, Pa.**—Contract for constructing concrete bridge over Broad Run in New Garden Township near Watsons Mill awarded to Kennedy Crossan, Kemblesville.

Maryland.—Following are 4 lowest bids opened by State Roads Comn., Baltimore, June 15 for reinforced concrete bridge, two 98 ft. spans, over Patapsco River along Baltimore and Washington Boule., near Elkridge, Baltimore and Howard Counties, Contract 05Br.: A. J. Boyle, Baltimore, $24,513; W. H. & C. F. Thompson, Baltimore, $26,603; Todd, Schenck & Co., Baltimore, $28,095; C. B. Clark & Co., Baltimore, $28,122.

★**Woodstock, Va.**—Contract for steel bridge over North Fork Shenandoah River (bids opened June 7) awarded to Virginia Bridge & Iron Co., Roanoke, at $6,241. M. B. Wunder, Co. Clk.

★**Cincinnati, O.**—Contract for constructing Park Ave. bridge over Kemper Lane awarded by Bd. Pub. Service to D. P. Foley, of Cincinnati, at $125,355. Unit prices in Engineering Record of June 19. F. S. Krug, Ch. Engr., Bd. Pub. Service.

★**Cleveland, O.**—Contract awarded by Bd. of Control to C. A. White Co. to construct concrete culvert over Doan Brook, in Rockefeller Park, near 105th St., at $15,300.

★**Waverley, O.**—Contract for constructing single span steel bridge over Sunfish Creek awarded to Oregonia Bridge Co., Lebanon, at $3,686 (bids opened June 14). Harold McCormick, Co. Surveyor.

Illinois—Following are the lowest bids opened June 16 by State Highway Comn., Springfield, for State Aid concrete bridges:

Gallatin County, 227.6 yds. concrete, Sect. A, Wm. Laugh & Son, Marion, $2,636 and Sect. B, 143.3 yds. $1,780.

Randolph County, 433.6 yds. concrete, Sect. B, Wm. Laugh & Son, $5,627.

Perry County, 293.5 cu. yds., will be readvertised.

★**Houston, Tex.**—Contract for constructing railroad bridge over Brazos River for Houston, Richmond & Western Traction Co. awarded to Federal Bridge Co., Des Moines, Ia., at about $56,000.

★**Laredo, Tex.**—Contract for constructing 2 concrete bridges over Zacate and Chacon Creeks, awarded to A. G. Ramey, San Antonio, at $11,555. Other bids Topeka Bridge Co., $12,251; Mas & Vasque, Laredo, $13,250; C. Jeffries, Laredo, $15,300. J. S. Westbrook, Chmn. Street and Bridge Com.

Washington.—Lowest bid opened by State Highway Dept. at Olympia for constructing Mayfield Bridge across Cowlitz River, in Lewis County, submitted by A. H. Cox & Co., Seattle, at $24,295.

★**Martinez, Cal.**—Contract for constructing drawbridge on Borden Rd. over San Joaquin River awarded to Tibbits-Pacific Co., San Francisco, at $140,000.

★**Idaho**—Contracts awarded by State Highway Dept., Boise, June 14 for bridge work as follows:

Twin Falls County on Idaho-Pacific, to Midland Bridge Co., Salt Lake City, Utah, for two 112 ft. spans at approximately $4,556, and Levy Constr. Co., Denver, Colo., for one 60 ft. span at $2,602.

PAVING AND ROADS

PROPOSED WORK.

Blackstone, Mass. — Citizens voted $8,000 bonds for constructing granolithic sidewalks on Main St.

Buffalo, N. Y.—City Council voted to pave with asphalt Frontenac, Lyndhurst and Virgil Aves.

New York, N. Y.—Following new paving work contemplated by President Manhattan Boro.:

Sheet asphalt: 38th St. from Park Ave. to Madison Ave.; West End Ave., S. 91st St. to 96th St.; 95th St., Bway. to West End Ave.; and 62d St., Columbus Ave., to Amsterdam Ave.

Granite Block: Amsterdam Ave. from 63d to 68th Sts., 36th St., 10th to 11th Aves.

Rensselaer, N. Y.—Bd. Aldermen contemplate paving 2d, 4th, Catherine and Walker Sts.

Rochester, N. Y.—Contracts about to be let for paving with asphalt Canary St., Hubbell Park and Hemlock Alley. Fred T. Ellwood, City Engr.

Camden, N. J.—Bonds amounting to $50,000 for repaving streets have been sold by City Council.

East Orange, N. J.—About $92,500 to be spent by city for road improvements.

Camp Hill, Pa.—Citizens voted $30,000 bonds June 19 for paving Market St. A. W. Lebo, Boro. Secy.

Pennsylvania.—Governor Brumbaugh has approved appropriations made to State Highway Dept. of $8,300,000. Wm. D. Uhler, City Engr., State Highway Dept., Harrisburg.

Pittsburgh, Pa.—Bonds for $500,000 for road improvements will be sold July 1 by Hyatt M. Cribbs, Co. Compt.

Pittsburg, Pa.—About $90,000 Hamilton Ave. paving bonds were sold by city.

Wilmington, Del.—Contract will soon be let by Street and Sewer Dept. for an additional 110,000 sq. yds. pavements.

Fairmont, W. Va.—Citizens of Fairmont Dist. voted $100,000 bonds June 21 for constructing roads. Engineers, Chaney & Armstrong, of Fairmont.

Martins Ferry, W. Va.—City Council voted to pave Catawba and Adams Sts.

Greenville, N. C.—Bonds for $400,000 for county roads will be sold July 1 by W. H. Wilimon, Co. Superv.

Roxboro, N. C.—Reported bonds for $75,000 for road improvements will be sold June 25 by R. A. Burch, Secy. Highway Comn.

Atlanta, Ga.—Paving of Ponce de Leon Ave. contemplated by city and county, cost about $50,000.

Council voted to pave Fairlie Ave. with asphalt and Prado St. with bituminous macadam.

Ft. Meade, Fla.—See "Water Works."

Ft. Myers, Fla.—See "Bridges."

New Orleans, La.—Contract about to be let by Commission Council for constructing a municipal asphalt repair plant at Genois, Gravier and Clark Sts.

Meridian, Miss.—Citizens voted to issue $50,000 bonds for constructing roads of county to connemt with city streets.

Augusta, Ky.—Citizens voted $40,000 June 15 for road improvements. W. V. Weldon, Co. Surveyor.

Frankfort, Ky.—About $15,000 is to be spent for road improvements in Owen County.

Bellefontaine, O.—Bonds for $35,000 for pike bonds for Logan, Liberty and Monroe Townships to be sold July 3, by J. S. Van Hise, Co. Aud.

Canton, O.—About 44,000 sq. yds. brick or concrete paving contemplated by County. W. L. Bender, Co. Engr.

Cincinnati, O.—Bonds for $60,500 for improving Dorsey St. will be sold July 8 by Wm. Leimann, Co. Aud.

Cleveland, O.—County Comrs. considering plans for constructing South Center Rd. from Lake to Summit County; cost about $328,000.

Findlay, O.—City Council voted to pave E. Hardin St.

Jeromeville, O.—Bonds for $18,500 for improving Main St. will be sold July 10 by M. L. Hosler, Clk. of Council.

Painesville, O.—Bonds for $68,000 for improving Cleveland - Buffalo Inter-County Highway No. 2 will be sold July 9 by Co. Comrs. (W. Albert Davis, Aud.).

Salem, O.—Bonds amounting to $75,000 voted for road improvements in Salem Township.

Urbana, O.—City will pave Miami St.; cost $22,600.

West Jefferson, O.—Citizens voted $30,000 bonds for street improvements.

Gary, Ind.—Plans being prepared for resurfacing Washington St., about 8,450 sq. yds., asphalt macadam; estimated cost $6,000.

Goshen, Ind.—Bonds amounting to $67,000 sold by Elkhart Township Comrs. for constructing 5 miles brick pavement on Ft. Wayne Rd. east of Goshen.

Marion, Ind.—City Engineer Petrie, preparing plans for improving Mason Boule. from 10th St. to C. & O. tracks by laying cement sidewalks, curbing, roadway to be of cement; 9th St. from Western Ave. to D St., with cement walks and roadway.

Blissfield, Mich.—Bonds for $30,000 for highway improvements will be sold June 30. Ralph E. Fletcher, Clk. Blissfield Township.

Eaton Rapids, Mich.—About $16,000 paving bonds sold by City Commission.

Chatsworth, Ill.—Village Bd. contemplate paving and constructing sewers on 35 clocks.

Fairbury, Ill.—City Clerk writes it is proposed to pave Third, Walnut and Maple Sts., with brick about 6000 sq. yds.; cost about $25,000. H. B. Taylor, Mayor.

Freeport, Ill.—Bd. Supervisors voted to construct ½ mile cement road on Globe Ave.

Keokuk, Ia.—City Council considering paving of 16th St. bet. High and Franklin, with concrete and cement curb.

Wichita, Kan.—H. D. Lester, City Clk., writes it is proposed to pave 21st and 18th Sts., about 7 blocks with brick.

Lincoln, Neb.—About 2 miles paving contemplated between Lincoln and University Pl., of which state is to pay half cost. Geo. E. Johnson, State Engr.

Deer Lodge, Mont.—Bonds amounting to $50,000 were sold by County Comrs.

Lewiston, Mont.—Contract about to be let by City Council for paving 5th Ave., south; cost, $35,934.

St. Louis, Mo.—Citizens voted against converting 21 blocks into drive and parkway connecting business and residential districts.

Bartlesville, Okla.—City Comn. contemplates paving 12 streets with concrete.

Anacortes, Wash.—Council voted to pave 8th St. and construct cement sidewalks on 3d St.

Bellingham, Wash.—Contract about to be let by City Council for constructing concrete walks on Williams, Garden, S. Elk Sts., cost $35,000.

Colfax, Wash.—About 11 1-3 miles permanent highway to be graded this year; plans not yet ready. J. M. McCaw, Co. Engr.

Garfield, Wash.—City Council contemplates constructing 16,400 sq. ft. concrete sidewalks and 2550 sq. ft. concrete cross walks.

Ridgefield, Wash.—Plans and specifications approved by County Comrs. for Permanent Highway No. 4, Rd. from Ridgefield to Horne Corners, distance of 2 miles; cost about $10,395.

Seattle, Wash.—Plans and specifications have been approved by Bd. Pub. Wks. for paving W. Massachusetts St., cost $32,000.

City Council voted to pave with brick Horton and Stacy Sts. and Utah Ave.

Tacoma, Wash.—City and County Comrs. figuring on jointly paving Edison Boule., bet. Warner and M Sts.; estimated cost $40,000.

City Council voted to construct concrete sidewalks on South K St.; cost, about $12,000.

Tacoma, Wash.—City Comn. voted to pave Wilkeson St.; cost about $15,000.

Walla Walla, Wash.—The city will construct about 8000 sq. yds. hard surface pavement. W. R. Rehorn, City Engr.

Astoria, Ore.—City Council contemplates paving Niagara Ave. and 5th St. with asphaltic concrete, cost about $20,000.

Contract about to be let by City Council for paving 11th and 12th Sts. with asphaltic concrete, also concrete sidewalks.

North Bend, Ore.—City Engineer directed to prepare plans for hardsurfacing one mile Main St.

Pendleton, Ore.—Thos. Fitzgerald, City Recorder, writes bids will probably be caled for in July for paving 34 blocks with gravel bitulithic on macadam foundation; concrete curb. G. Kimbrell, City Engr.

Salem, Ore.—City Council voted to hard surface pavement on 17th St., cost $13,000.

Seaside, Ore.—Construction of crushed rock road connecting Astoria and Seaside is contemplated; cost, $25,000. Clyde Fulton, Astoria, is interested.

Tillamook, Ore.—Proposed to pave 5th St. and 2d Ave. 36 ft. wide, with concrete 4 to 5½ in. thick, asphalt top, concrete base, with concrete curb; cost about $29,730. F. E. Hobson, City Engr.

San Francisco, Cal.—Bd. of Works voted to pave Fulton St.; cost $16,150.

San Jose, Cal.—There is a movement on foot in Santa Clara County, to bond County for several million dollars for permanent road construction. J. G. McMillan, Co. Surveyor.

Bancroft, Idaho—Town Council voted to construct cement sidewalks on several streets, cost about $12,000.

Halifax, N. S.—See "Water Works."

Stamford, Ont.—City Council voted to extend concrete pavement on Portage Rd., ½ mile north, and pave 1¼ miles Lundy's Lane, with RocMac macadam, cost about $28,000.

West Toronto, Ont.—Good Roads. Comn. York County voted to pave with asphalt one mile on Dundas St., cost $10,000.

BIDS DESIRED.

Massachusetts—Until June 29 by Massachusetts Highway Comn. (F. I. Bieler, Secy.), for 3700 ft. asphalt macadam road in Danvers.

Warwick, R. I.—Until July 2 by Thos. A. Briggs, Chmn. Town Council, for 3600 ft. highway.

Connecticut.—Until July 2 by Chas. J. Bennett, State Highway Comr., Hartford, for following sections of state highway (gravel unless otherfise stated):

Ashford—About 14,960 lin. ft. Plans and specifications at selectmen's office, Warrenville.

Bethel—6315 lin. ft. Plans, etc., at Town Clerk's office.

Canterbury—5100 lin. ft. native stone macadam and about 1995 ft. native stone resurfacing. Plans, etc., at Town Clerk's office.

Glastonbury—6500 lin. ft. 2-in. bituminous macadam. Plans, etc., at Town Clerk's office.

Killingworth — 7150 lin. ft. grading. Plans, etc., at the Town Clerk's office.

Newtown—8040 lin. ft. native stone. Plans, etc., at Town Clerk's office.

Plainfield—6875 lin. ft. gravel. Plans, etc., at Town Clerk's office, Central Village.

Sprague—1630 lin. ft. gravel. Plans, etc., at Post Office, Versailles.

Vernon—2675 lin. ft. 6-in. bituminous macadam. Plans, etc., at Town Clerk's office, Rockville.

Woodstock—Constructing 25-ft. span, reinforced concrete "T," beam bridge, over Mill Brook, on Putnam-Woodstock Rd., South Woodstock. Plans, etc., at office of E. C. Welden, Div. Eng., Jordan Blk., Willimantic.

Waterford — 10-ft. reinforced concrete slab culvert on New London-Lyme Turnpike, over Jordon Brook, Waterford. Plans, etc., at office of C. A. Campbell, Div. Engr., 4 Washington Pl., Norwich.

Albany, N. Y.—By State Comn. of Highways, 55 Lancaster St., as follows: Until July 13 for improvement of highways in various counties, also repair contracts, also until July 15 for construction and repair of road in various other counties, advertised in Engineering Record.

Alden, N. Y.—Until June 29 by Alonzo G. Hinkley, Clk. Bd. Superv., Buffalo, for constructing Alden-Crittenden Road in town of Alden.

Brooklyn, N. Y.—Until June 30 by L. H. Pounds, Boro. Pres., for 7,040 sq. yds. asphalt pavt. on Vernon Ave., 3,400 sq. yds. on Lincoln Road and 1,720 sq. yds. iron slag. pavt. on Pioneer Pl.

Buffalo, N. Y.—Until June 29 by Francis G. Ward, Comr. Pub. Wks. for repaving portions of Jersey, S. Cedar and Mortimer Sts., and for paving portions of Abbott Road and 4th St.

Buffalo, N. Y.—Until July 2 by Francis G. Ward, Comr. Pub. Wks., for repaving portions of Washington St.

Niagara Falls, N. Y.—Reported desired until July 6 by Bd. Wks. for paving portion of Whitney Ave.; cost $32,000.

Belvidere, N. J.—Until July 2 by Bd. Chosen Freeholders (J. R. Thatcher, Dir.), for surface treatment of 194,000 sq. yds. of county highways, also for repairs to the macadam road leading from Hackettstown to Allamuchy. F. W. Salmon, Co. Engr., Netcong.

Bloomfield, N. J.—Until July 5 by Raymond F Davis, Town Clk., for furnishing 5,000 tons of broken stone (Orange Mountain trap rock or equal).

Newark, N. J.—Until July 1 by Bd. Street & Water Comrs. (Morris R. Sherrerd, Ch. Engr.), for paving with asphalt Hedden Terrace and Parker St., about 4,000 sq. yds.

Rutherford, N. J.—Until July 2 by F. A. Stedman, Boro. Clk., for water bound macadam on portions of Sylvan St., Van Ripper and Van Ness Aves.

Leechburg, Pa.—Until June 28 by John A. Hill, Boro. Secy., for about 4,000 sq. yds. pavt. on Canal St.

Pittsburgh, Pa.—Until July 8 by Hyatt M. Cribbs, Co. Compt. for improving Noblestown Road, No. "O", Braddock and Ardmore Connecting Road, Newtown and Rodi Road, McCoy Extension Road, Wilmerding and Monroeville Connecting Road and Millers Run Extension Road, in all about 6 miles.

Chestertown, Md.—Until July 13 by Co. Comrs. (Saml. Hicks, Clk.) for building section of State Aid road in Kent County from Galena and Lambson Station 2.3 miles.

Clearwater, Fla.—Until July 8 (extension of date from June 18) by C. Wiecking, Clk. Bd. Co. Comrs., for constructing about 50 miles brick roadway, 9 ft. wide, backed by 3 ft. on each side of shell or rock.

Chattanooga, Tenn.—Until July 9 by E. D. Bass, Comr. Dept. Streets and Sewers, for repaving Market and E. 9th Sts. with creosoted wood block or sheet asphalt about 20,000 sq. yds. Advertised in Engineering Record.

Covington, Ky.—Until July 1 by John B. Dillon, Co. Clk., for constructing a concrete road between corporate limits, a distance of about 2 miles. Approximate quantities for each mile: 10,560 sq. yds. shaping roadway, 300 cu. yds. scarifying 2053 cu. yds. concrete, 1:2:3 mixture. Roadway 18 ft. wide, 8 in. thick in center and 6 in. on sides.

Ashland, O.—Until July 2 by Township Trus. (Fred Hartsel, Clk., Ashland), for grading, draining and constructing certain sections of water or bituminous bound and concrete roads in sand township, in all about 5 miles.

Canal Dover, O.—About July 15 by C. Weaver, City Clk., for paving E. 3d St. with brick about ¼ mile, 50-ft. wide; concrete curb; cost $20,000. Engineer, Geo. Arnold, New Philadelphia, O.

Ohio.—Until June 29 by Clinton Cowen, State Highway Comr., Columbus, for following road improvements:

Licking County, Sect. "J," Summit Station Extension Road, Lima Twp., grading roadway and paving with waterbound macadam. Length, 2660 ft.; width, 12 ft. Cost, $3,875.

Muskingum County, Sect. "N" of Zanesville-McConnelsville Road, in Wayne Twp., constructing bridges and culverts, grading roadway and paving with brick. Length, 3163.4 ft.; width, 16 ft. Cost $11,297.

Sandusky Co., Sect. "E" of Sandusky-Clyde Road, Townsend Twp., constructing bridge and culverts; grading roadway and paving with concrete. Length, 6528 ft.; witdh, 16 ft. Cost $17,279.

Same time and place as above for work required by Bureau of Maintenance and Repair:

Franklin County, Sect. "L," Columbus-Newark Road, in Truro, Marion and Jefferson Twps., reshaping old road and surfacing with bituminous macadam, and water-bound macadam. Length, 45,144 ft.; width 26, 20 and 16 ft. Cost, $66,448. Alternate bids to be received for surfacing with bituminous macadam, waterbound macadam, and macadam treated with lignin liquor. Estimated cost $69,660.

Franklin Co., Sect. "K" of Columbus-Marysville Road, in Perry Twp., reshaping old road and surfacing with bituminous macadam. Length, 17,635 ft; witdh, 16 ft. Cost, $29,635.

Lake Co., Sect. "A" of Painesville-Warren Road, Concord Twp., reshaping old road and surfacing with bituminous macadam. Length, 10,460 ft.; width, 14 ft. Cost, $16,804.

Licking Co., Sect. "A" of Columbus-Newark Road, Lima Twp., reshaping old road and surfacing with waterbound macadam. Length, 5749; witdh 16 ft. Cost $7,483.

Lucas Co., Sect. "G" of Toledo-Wauseon Road, Swanton Twp., reshaping portion of roadway and surfacing with bituminous macadam. Length, 24,900 ft.; width, 16 ft. Cost $19,075.

Medina Co., Sect. "N," Cleveland-Wooster Road, Medina Twp., reshaping old road and resurfacing with waterbound macadam. Length, 9800 ft.; width, 14 ft. Cost, $13,369.

Union Co., Sect. "F" of Marysville-Marion Road, Paris Twp., reshaping old road and surfacing with bituminous macadam. Length, 7200 ft.; width, 16 ft. Cost, $12,186.

Tiffin, O.—Reported desired until July 25 by O. J. Oberlander, City Engr., for 25,800 sq. yds. brick pavt., crushed stone or concrete base, 15,600 ft. sandstone or concrete curb, excav. etc. on 4 streets.

Upper Sandusky, O.—Reported desired until June 29 by Jay Marguerat, Co. Aud. for grading and stoning sections of Tymochtee Crane Township Road Improv. No. 53 and Sect. 5 of No. 48.

Wakeman, O.—Reported desired until June 26 by E. E. Bowen, Clk. Bd. Clarksfield Township Trus. for grading and im-Clarksfield Sect. No. 1 about 2 miles.

Youngstown, O.—Until July 12 by Frank H. Wogan, Co. Clk., to repair and rebuild the pavement on South Ave. bridge.

Indiana.—By Co. Comrs. as follows:

Until July 1:

At Evansville—Rock road in Scott Township; also Center Township. C. P. Beard, Co. Aud.

Until July 5:

Williamsport—2 gravel roads in Jorda Township. D. Moffat, Co. Aud.

Jasper—3 roads in Boone Township; rock road in Patoka Township. J. H. Seng, Co. Aud.

Greencastle—Gravel roads in Madison, Warren and Jackson Townships. C. L. Airhart, Co. Aud.

Until July 6:

Madison—Roads in Lancaster and Madison Townships. Chas. Dibler, Co. Aud.

Bloomington—2 roads in Perry Township. W. F. Kinser, Co. Aud.

Decatur — Macadam road in Preble Township. T. H. Baltzell, Co. Aud.

Fowler—2 gravel roads in Gilboa Township. Warren Mankey, Co. Aud.

Rensselaer—Stone road in Carpenter and Wheatfield Townships. Jos. P. Hammond, Co. Aud.

Greensburg—Road in Washington and Marion Townships. Linton W. Sands, Co. Aud.

Washington—Pike roads in Washington and Elmore Townships. Lew S. Core, Co. Aud.

Frankfort—6 gravel roads. Edw. Spray, Co. Aud.

Until July 8:

Valparaiso—Gravel road on line dividing Boone and Porter Townships; also gravel road in Center and Liberty Townships. C. A. Blackly, Co. Aud.

Corydon—2 gravel or macadam roads in Jackson Township. J. L. O'Bannon, Co. Aud.

Chicago, Ill.—Until July 2 by Bd. Local Improv. (Edw. J. Glacklin, Secy.) for constructing cement sidewalks on various streets.

Highland Park, Ill.—Until July 2 by Bd. Local Improv. (Saml. M. Hastings, Pres.) for grading, draining and paving with asphalt macadam on Skokie Ave., also with macadam Beech St., including constructing reinforced concrete girder type bridge, advertised in Engineering Record.

Illinois.—Until June 30 by State Highway Comn., Springfield, for following State aid road work: (Cost is engineer's estimate, exclusive of cement furnished by State):

Jo Daviess County, Sect. A, concrete road near Galena, 3800 ft., cost $5,402.

Jo Daviess County, Sect. B, concrete and brick road near Elizabeth, 3300 ft., cost $5,800.

La Salle County, Sect. B, brick road near Ottawa, 2640 ft., cost $9,867.

La Salle County, Sect. D, brick road near S. Ottawa, 1600 ft., $11,078.

Vermilion County, Sect. B, earth work and culverts near Newell, 2550 ft., cost $12,852.

White County, Sect. A, gravel road near Carmi, 11,746 ft., cost $14,418.

Ogle County, Sect. B, bituminous surfacing road near Oregon, 19,192 ft., $1,500.

Jackson County, Sect. B, macadam shoulders near Murphysboro, 3400 ft., cost $1,728.

Du Page County, Sect. B, concrete road near Hillside, 2225 ft., cost $5,280.

Cass County, Sect. B, concrete road near Chandlerville, 445 ft., cost $637.

Peoria, Ill.—Until June 28 by Bd. Local Improv. for paving with brick Fisher St.; cost $27,000.

Madison, Wis.—Reported desired until June 29 by H. C. Buser, City Clk., for paving Williamson St. with vitr. paving blocks.

Oakland, Ia.—Reported desired until June 28 for 11,000 yds. brick or concrete pavt. J. H. Mayne, Engr., 235 Merriam Blk., Council Bluffs.

West Minneapolis, Minn.—Reported desired until July 6 by E. A. Close, Village Recorder for constructing cement or concrete sidewalks for the ensuing year.

Glasco, Kan.—Until June 29 (readvertisement) at office of City Clerk, for constructing concrete pavement and concrete curb and gutter on Main St., requiring approximately 4524 sq. yds. pavement and 1665 lin. ft. combined curb and gutter.

Herington, Kan.—Until June 28 by C. N. Hull, City Clk. for paving B. St. with brick or asphaltic concrete. Engr., Karl Riddle, of Abilene.

Kearney, Neb.—Reported desired until July 2 by T. N. Hartzell, City Clk., for paving with repressed brick, vertical fibre brick, asphaltic concrete and cement concrete in Dists. Nos. 4 and 5.

Kansas City, Mo.—Until June 29 by Edw. F. Webster, Acting Secy. Bd. Pub. Wks. for paving with asphalt, asphalt macadam and macadam and constructing artificial stone sidewalks on portions of various streets.

Corsicanna, Tex.—Reported desired until July 6 by J. A. Harper, City Secy., for paving with either bitulithic, brick, asphaltic concrete or asphaltic macadam including concrete curb and gutter.

Cathlamet, Wash.—Until July 6 by Vlanche Heron, Co. Aud. for clearing, drubbing and grading Road No. 19, approximately 6½ miles, from Kelso to Ilwaco.

Mt. Vernon, Wash.—Until July 7 by W. V. Alexander, Co. Aud., for paving with concrete, 16,832 sq. yds. reinforced concrete 4160 sq. yds. in all, about 2¼ miles Permanent Highway No. 2A, near Sedro Woolley; also reinforced concrete bridge 76 ft. in length; cost $31,474. A. L. Strong, Co. Engr.

Seattle, Wash.—Reported desired until July 6 by County Comrs. for grading and graveling 2 miles of Permanent Highway No. 7-A; cost $18,000.

Until July 12 by Co. Comrs. (Byron Phelps, Aud.) for constructing Bond Road No. 11 (Duwamish-Renton Junction Road) including clearing, grading and hardsurfacing; cost $50,000.

Washington.—Reported desired until June 28 by State Highway Comn., Olympia, for grading, clearing, draining and surfacing about 1 mile of Pacific Highway from LaCenter north in Clarke County.

Wenatchee, Wash.—Until July 6 by Co. Comrs. (T. W. Cowan, Chmn.) for hardsurfacing Permanent Highway No. 7, 1 mile, and No. 6, 3.53 miles.

Salt Lake City, Utah.—Reported desired until July 1 by S. Q. Cannon, City Engr., for 17,700 sq. yds. sheet asphalt, 180 sq. yds. concrete, 15,000 sq. yds. bitulithic and 17,000 sq. yds rock asphalt pavt.

Moscow, Idaho.—Reported desired until July 12 by City Clerk, for 7000 sq. yds. hard surface pavt., storm sewers and curbing.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Maine**—Contract awarded by State Highway Comn., Augusta, for constructing section of State Aid highway in Bangor (bids opened June 18) to Small & Ingalls, Bar Harbor, as follows: 4480 sq. yds. grading, 10 cts.; 4480 sq. yds. concrete surfacing, $1.34; 2133 sq. yds. shoulder grading, 11 cts.; 2133 sq. yds. gravel shoulders, 31 cts.

Albany, N. Y.—See "Miscellaneous."

Albany, N. Y.—Following are lowest bids opened June 16 by State Highway Comn., 55 Lancaster St., for construction of highways by State Aid:

Road No. 1239—Windsor Village, Main St., Broome Co., .68 mile: Lane Constr. Cor., Meriden, Conn., $10,738; Jos. W. Heisler & Co., Schenectady, $10,919; Nash & Griffin, Norwich, $11,089; Jas. T. Moore, Elmira, $11,273.

Road 1241—Chenango Forks-North Fenton, Broome Co., 2.32 miles: Lane Constr. Cor., Meriden, Conn., $20,750; F. P. Meckes, Long Pond, Pa., $23,138; John H. Gordon, Albany, $23,742; Juniata Co., Philadelphia, Pa., $23,911.

Road 1273—Downsville Hamlet, Main St., Maple Ave. and Creamery St., Delaware Co., 2.50 miles: Blankfield & Donovan, Kingston, $23,650; Ruddy-Saunders Constr. Co., Troy, $24,112; DeGraff & Hogeboom, Inc., Kingston, $24,168; John A. Jova, Inc., Newburgh, $25,431; Wm. C. Evans, Ambler, Pa., $26,370.

Road 5554—Schoolhouse-Lassellsville, Pt. 1, Fulton Co., 4.58 miles: C. W. Tryon, Boyntonville, $42,030; Clarence Welsh & Co., Gloversville, $42,507; Lane Constr. Cor., Meriden, Conn., $43,369; Dale Eng. Co., Utica, $44,326.

Road 1098 — Eagle Bay-Sixth Lake, Hamilton Co., 4.22 miles: John J. Guinan Contr. Co., Brooklyn, $38,258; John F. Lewis, Albany, $38,473; John A. Jova, Inc., Newburgh, $40,892; Dale Eng. Co., Utica, $40,931.

Road 1100—Indian Lake-County Line, Hamilton Co., 4.54 miles: Gallway & Co., New York, $43,720; J. D. Moynehan & Co., Inc., Mohawk, $44,575; Brady-Oltarsch Constr. Co., New York, $44,924; Langan Constr. Cor., Albany, $45,113.

Road 5332-B—Lowville-Carthage, Lewis Co., 6.86 miles: Spellman-Oliver Co., Chateaugay, $72,552; Fred E. Gross & Son, Yonkers, $73,572; Cattaraugus Eng. Co., Olean, $75,309; Thos. Grady, Rochester, $75,426.

Road 1283—Rush-Henrietta, Monroe Co., 4.54 miles: Cleveland & Sons Co., Brockport, $33,561; Chambers & Barnes, Rochester, $34,178; Whitmore-Rauber & Vicinius, Rochester, $34,299; Harold J. Shields, Albany, $34,963.

Road 1284—Riga-Mumford, Monroe Co., 6.05 miles: Fred E. Gross & Sons, Yonkers, $35,274; Peter F. Connolly Co., Horseheads, $35,754; Cleveland & Sons, Brockport, $36,116; E. P. Weed & Son, Holley, $37,037.

Road 5560—Middleport-Medina, Part 1, Niagara Co., 1.32 miles: John W. Landel, Tonawanda, $29,719; Dunkirk Constr. Co., Dunkirk, $29,970; McNerney Const. Co., Canton, Pa., $30,578; Fred W. Knickenberg, Buffalo, $31,309.

Road 5561—Gasport-Middleport, Niagara Co., 4.42 miles: Fred W. Knickenberg, Buffalo, $53,854; John W. Landel, Tonawanda, $54,618; Dunkirk Constr. Co., Dunkirk, $55,040; Servis & Mackey, Youngstown, $55,702.

Road 5562—Gasport-McNalls, Niagara Co., 2.33 miles: McNerney Constr. Co., Canton, Pa., $41,121; Fred W. Knickenberg, Buffalo, $41,838; John F. Dolan Contr. Co., New York, $43,617; Woolsey Constr. Co., Davenport, Ia., $43,696.

Road 5563—Lockport-McNalls, Niagara Co., 5.07 miles: Cattaraugus Eng. Co., Olean, $74,706; McNerney Constr. Co., Canton, Pa., $75,924; John Johnson Constr. Co., Buffalo, $76,041; Woolsey Constr. Co., Davenport, Ia., $76,311.

Road 5559—Poland-Trenton, Oneida and Herkimer Cos., 8.89 miles: C. W. Tryon, Boyntonville, $67,990; Fred E. Gross & Sons, Yonkers, $68,834; Semper Bros., Watertown, $69,393; J. G. Hayes Co., Inc., Rome, $71,782.

Road 1072—Syracuse-Bridgeport, Part 2, Onondaga Co., 3.06 miles: Phelan & Sullivan, Utica, $53,321; Frank S. & Anthony Sporato, Syracuse, $55,709; Antonio Mando, Syracuse, $55,956; Albert Gaffey, Syracuse, $56,434.

Road 1073—Minoa-Manlius Center-Manlius, Onondaga Co., 7.23 miles: Criswell-Mallory Co., Inc., Mechanicville, $85,388; Fred E. Gross & Son, Yonkers, $86,761; Chambers & Barnes, Rochester, $89,099; Albert Gaffey, Syracuse, $89,768.

Road 1074—Burnet and Milder Aves., Eastwood, and West Manlius St., E. Syracuse, Onondaga Co., 1.91 miles: John Davin, Syracuse, $40,977; Antonio Mando, Syracuse, $42,145; Wm. H. Ring Contr. Co., Ogdensburg, $43,245; M. J. Gleason & Co., Syracuse, $43,274.

Road 582—Holley-Ridge Road, Orleans Co., 2.46 miles: Brady-Oltarsch Constr. Co., New York, $20,122; Thos. Hucknall, Albion, $22,568; Greece Constr. Co., Rochester, $23,171; Chambers & Barnes, Rochester, $23,499.

Road 1293—Maple Ridge, Part 3, Orleans Co., 1.8 miles: Goodrich & Truesdale, Barnard, $17,005; Rhodey & Clawson, Albion, $17,593; McNerney Constr. Co., Canton, Pa., $18,055; E. R. Weed & Son, Holley, $18,270.

Road 1120—Troy City, Winter St., Rensselaer Co., .34 mile: Martin Murray & Co., Troy, $15,055; Belmar Contr. Co., Inc., Troy, $15,290; Abner M. Harper, Inc., Newburgh, $15,395; Gleason & Davitt, Albany, $15,520.

Road 1154—Spring Ave.-Troy-Poestenkill, Part 2, Rensselaer Co., .88 mile: Gleason & Davitt, Albany, $7,976; Edw. Rendert, Averill Park, $8,033; Geo. Holler, Albany, $8,187; County Constr. Co., Troy, $8,307.

★Contract awarded to Kenny & Dumary for improving Glenwood, Parkwood, Erie and other streets in the New Scotland Ave., at $56,716; also for Homestead Ave. work and other streets at a cost of $61,318 (bids opened June 7).

★**Buffalo, N. Y.**—Contracts for paving awarded by Comr. Pub. Wks. as follows: Henry P. Burgard Co., 1968 Fillmore Ave., Clinton St., with asphalt, $7,150, and Constantine Constr. Co., Alsace Ave., with brick, at $12,975.

★**Buffalo, N. Y.**—Contract for paving Gates Circle awarded by Park Bd. to German Rock Asphalt Co. at $24,700.

★**Clifton Springs, N. Y.**—Contract for constructing 1.38 miles bituminous macadam road through village awarded to Thomas F. Murray, Le Roy, at $17,306.

Rochester, N. Y.—Lowest bid opened by Bd. Contract and Supply for paving Vinton Rd. with asphalt, submitted by Rochester Vulcanite Pavement Co., Rochester, at $49,798.

★**Rochester, N. Y.**—Contract for paving Norton St. with asphalt awarded by Bd. Contract & Supply to Ribstein-Holter Co., Rochester, at $64,197.

Lowest bid opened by Bd. Pub. Wks. for paving Electric Ave. with asphalt submitted by Warren Bros. Co., Boston, Mass., $11,266.

No bids opened by Bd. Contract & Supply June 16 for paving North St. with brick, estimated cost $41,000.

★**Hackensack, N. J.**—Contract for resurfacing with concrete State, Bergen and Warren Sts., awarded to E. C. Humphrey, of Hackensack, at $14,081. Other bids: A. W. Gill, Hackensack, $14,113; D. Nopoli & Toriello Contr. Co., Hackensack, $16,163. Fred J. Thomson, Clk. Improv. Comn.

Jersey City, N. J.—Lowest bid opened by City Comrs. June 10 for repaving Montgomery St. submitted by Van Kueren Contr. Co., Jersey City, at 76 3/10 per cent standard price.

Newark, N. J.—Lowest bid opened recently by Bd. of Works for paving Ferry St. from Market to Merchant St. submitted by Glenfield Constr. Co., Newark, at following bid: 8900 sq. yds. wood block pavt., 8-in. concrete base, $2.84; 5300 ft. 20 x 6-in. granite curb in concrete, $1.06; 6 sets 20 x 6-in. granite corners in concrete 6 ft. radius, $13; 400 lin. ft. 20 x 6-in. granite corners in concrete 10-ft. radius, $1.40; 400 lin. ft. 20 x 6-in. granite corners in concrete 12 ft. radius, $1.36; 100 lin. ft. 18 x 6-in. header curb in concrete, 85 cts.; 30 new basins complete, $70; total, $34,261. Next 3 lowest bidders: Van Keuren & Son, Harrison, $35,153; John S. Geiger & Son, Newark, $35,400; Ralph Sangiorcain, Newark, $35,454.

★**Greensburg, Pa.**—Contract awarded by Co. Comrs. for paving 3½ miles West Newton-Suterville Rd. to R. Galiardi, Connellsville, at $74,975 (bids opened June 4). Next 3 lowest bids: Bell-Bockel Co., Altoona, $80,430; Brooke & Cornish, Uniontown, $85,326; Rinehart Bros., East Liverpool, O., $86,396. G. R. Potts, Asst. Co. Road Engr.

Philadelphia, Pa.—Bids opened June 15 by Dept. Pub. Wks., Bureau of Highways, for improvement of Northeast Boule., from Rhawn St. northward, including the branches, and lowest bid was submitted by McNichol Paving & Constr. Co., 1923 Cherry St., as follows: Earth grading, 28 cts. per cu. yd.; bituminous pavt., 53½ cts. per sq. yd.; concrete base, $4.43 per cu. yd.; vitr. block pavt., $1.46 per sq. yd.; concrete curb, 54 cts. per lin. ft.; concrete footways, $1.36 per sq. yd., and topsoil, 25 cts. per sq. yd.; total $285,546. Other bids: Bower & Ruch, Wayne and Roberts Aves., $303,273; Jas. McGraw Co., 1010 Commercial Trust Bldg., $397,220.

★**Pittsburgh, Pa.**—Contracts for constructing roads awarded by County Comrs. as follows (bids opened June 10): Jacks Run Rd., 1.6 miles, with macadam, in Ross Township, to Collins Gordon Contr. Co., Wabash Bldg., at $28,968; Thompson and Wible Rd., 2.4 miles, with macadam, to John Foley Contr. Co., Columbus, O., at $34,815; Oakwood Rd., .44 mile in Chartiers Township of brick, and Middletown Rd., 1.25 miles in Chartiers Township of brick, to Matthew Ott & Co., Pittsburgh, at $9,990 and $31,014 respectively. Hyatt M. Cribbs, Co. Controller.

★**Pittsburgh, Pa.**—Contract for paving 5.13 miles Fox Chapel Rd. with brick awarded by County Comn. June 13 to T. A. Gillespies Co. at $131,955.

★**Richmond, Pa.**—Contract for paving North A St. with asphalt awarded by Bd. Public Wks. June 1 to Andrews Paving Co., Hamilton, O., at $1.80 per sq. yd.

Maryland.—Following are 4 lowest bids opened by State Roads Comn., Baltimore, June 15 for state road work: Contract—S-8: (a) concrete; (b) hydrated lime: McNerney Constr. Co., Canton, Pa., (a) $44,285; (b) $45,305; Bond & Fedeli, Baltimore, Md., (a) $46,462; (b) $47,632; Austin Bennett Constr. Co., Baltimore, (a) $47,201; (b) $48,561; P. F. Connolly & Co., New York, (a) $47,453; Chesapeake Constr. Vo., Preston, (b) $49,840.

★**Westminster, Md.**—Contract awarded by County Comrs. to Thomas Bennett & Hunter, of Westminster, to construct section of State Aid Highway along Houcksville Rd., a distance of about 1.46 miles, at $11,695.

★**Wilmington, Del.**—Contract for about 100,000 sq. yds. pavements awarded by Street and Sewer Dept. to Topeka Paving Co., Inc., Brooklyn, N. Y., at about $500,000.

★**Greenville, S. C.**—Contract awarded for about 70,000 sq. yds. asphalt concrete and brick paving to Slattery & Henry, of Greenville, and to West Constr. Co., Chattanooga, Tenn., and for sidewalks to Greenville Tile Co., Greenville. C. P. Ballenger, City Engr.

Macon, Ga.—Lowest bid opened by City Council June 1 for paving with concrete 15 streets submitted by C. M. Preston, Macon, at $1.17 per sq. qd.

★Contract for paving 15 streets awarded as follows: To C. M. Preston Co., Macon, for concrete and shale brick, and to Massee Co., Macon, for asphalt.

★**Atlanta, Ga.**—Contract for paving Grant St. with wood block awarded to Jameson Hallowell by city, at about $20,000.

★**Tavares, Fla.**—Bids were opened June 7 by County Comrs. (M. H. Duncan, Clk.), to construct a system of roads in Dist. 4, requiring approximately 98,973 lin. ft. roadway, 25,982 cu. yds. excav., 112,024 sq. yds. modified asphalt pavement, 7 bridges to be raised, 50 12-in. drains, 19.02 cu. yds. concrete and 500 lbs. steel, and contract has been awarded to Continental Public Works Co., 2 Rector St., New York, at $79,023. Other bids: Owens Constr. Co., Vicksburg, Miss., $89,253, and Edwards Constr. Co., Tampa, $91,629. J. B. McCrary Co., Engrs., Third Natl. Bank Bldg., Atlanta, Ga.

Covington, Ky.—Following are lowest bids opened by Co. Comrs. June 8 for 3 miles concrete roadway 18 ft. wide, 8 in. thick in center and 6 in. on side with metal foundation joint (price given per mile): Daniels & Lyst, $13,648; S. M. Billiter, $15,356; Vastine, Nowland & Lowrey, $15,765; John Ruebel, $16,122.

Vanceburg, Ky.—Following bids opened by Fiscal Court for improving about 7 miles road between Vanceburg and Valley J. H. Hostetter & Co., Lexington, at $42,299. J. W. Rand, Charleston, $56,757; J. T. Conley, Covington, $42,878, and W. M. Lutes & Co., Lexington, $37,246.

★**Berlin Center, O.**—Contract for macadamizing east and west center road in Berlin Township (bids opened June 12) awarded to Gallagher & Aaron, Youngstown. S. M. Rakistraw, Clk.

★**Cleveland, O.**—Contract awarded by Bd. Control, June 2, to Cleveland Trinidad Paving Co., for grading, draining, curbing, repaving with bitulithic, and improving E. 72d St., at $15,910.

Lowest bid submitted to Co. Comrs. by Falk Constr. Co., Cleveland, for paving Libby Road, 15,734 sq. yds. W. A. Stinchcomb, Co. Engr.

★**Columbus, O.**—Contracts for paving awarded by Bd. Public Service as follows: Brighton Ave. with asphalt to Wm. M. Graham, $17,600; Weaver St. with brick to B. F. Patterson, $6,739 and Richmond Ave. with asphalt to A. G. Pugh, $8,161.

Dayton, O.—David Beard submitted only bid to City Council for paving Lorain Ave., at $34,097.

★**Defiance, O.**—Contract for macadamizing Ft. Wayne Rd. No. 3 (bids opened June 14 by Co. Comrs.) awarded to Schneider Bros., Defiance, at $34,958. Next 3 lowest bids: Haase, Kretzer & Newill, Defiance, $35,842; John F. Hipskuid, Richmond, Ind., $35,990; R. C. Roach, Waterville, $36,490. R. T. Wisda, County Surveyor.

★**Findlay, O.**—Contract for repaving Main St. with wood block awarded by city to Brooks Constr. Co., Ft. Wayne, Ind., at $88,900.

★**Struthers, O.**—Contract for brick pavt. on Broad St. and Poland Ave. awarded M. P. Connelly & Son, of Youngstown, at $8,720. J. Richards, Village Clk.

★**Steubenville, O.**—Contract for improving Irondale Pike awarded by County Comrs. to A. W. McDonald, Steubenville, at about $50,000.

★**Youngstown, O.**—Contracts awarded as follows for brick paving by Bd. Pub. Service (H. O. Fox, Secy.): Blaine St., to Frank Serafino, at $12,666; Powersdale St., to Chas. Harris, at $10,185; and Glenhaven Ave., to Miller Bros., at $6,277. Contractors all of Youngstown.

Gary, Ind.—Following 4 lowest bids opened by County Comrs. at Crown Point for improvement of Calumet Township Road in Gary, to include 90,000 cu. yds. grading, 22,580 sq. yds. asphalt macadam: Downing & Fredericks, Hammond, $19,460; Jacob Sansibar, Gary, Ind., $27,800; T. C. Clifford, Crown Point, $29,000; Gary Constr. Co., Gary, $29,200.

★**Indiana.**—Following contracts awarded by County Comrs. for road improvements.

Princeton—Ft. Branch-Haubstadt Rd. to S. R. Adams & Co., Princeton, $10,864. Martin Rd., in Montgomery Township to Geo. Hoopes, Anderson, at $13,944. (Bids opened June 8.)

★**Bay City, Mich.**—Contract for paving awarded by Bd. Public Wks. June 7 as follows: Lafayette, Michigan and Kosciusko Sts. to Williston Constr. Co., at $25,040; Madison and Johnson Sts., with sheet asphalt, to Cleveland Trinidad Co., Cleveland, O., at $52,039 and $4,209 respectively; Germania St., to Bateson Bros., at $12,011, and for John St., with brick, to P. Ryan, at $8,417.

★**Lake Forest, Ill.**—Contract for 13,400 sq. yds. asphaltic concrete pavement (bids opened June 16) awarded to H. G. Goelitz, of Oak Park, at $29,661. Other bids: Western Improv. Co., Racine, Wis., $30,628; John A. McGarry Co., Chicago, $31,685. Jas. Anderson, Jr., City Engr.

★**Milwaukee, Wis.**—Contracts awarded by Bd. Pub. Wks. for paving with asphalt 31,627 sq. yds. (bids opened June 10) as follows: White Constr. Co., Railway Exchange Bldg., Milwaukee, 2 jobs, $19,997; Badger Constr. Co., Railway Exchange Bldg., Milwaukee, 3 jobs, $21,511; T. P. Caughlin, North and Humboldt Aves., Milwaukee, 2 jobs, $35,399. Percy Breman, Deputy Comr.

★**Atlantic, Ia.**—Contract for 24,631 sq. yds. concrete pavement awarded to P. C. Hansen & Son, Sioux City, at $1.14 per sq. yd. on limestone base; 12,361 lin. ft. 6½ in. combined curb and gutter, 42 cts.; 2200 cu. yds. grading, 40 cts. T. E. Nichols, City Clk.

★**Marshalltown, Ia.**—Contract for paving 25 blocks with concrete awarded by City Council to Thos. Carey & Sons, Clinton, at $1 37¼ per sq. yd.

★**Duluth, Minn.**—Contracts awarded by City Council for paving as follows (Lyonel Ayres, City Engr.): Commonwealth Ave. with brick to Rogers & McLean, at $38,728, First St., with bitulithic, to General Contr. Co., Minneapolis, at $24,986; 6th St. and 16th Ave. E., with bituminous concrete, to Aug. Bodin & Son, at $20,423.

Olson & Johnson submitted lowest bid for grading and paving Exeter St. with 1-course reinforced concrete, at $12,223.

★**Duluth, Minn.**—Contracts for paving 1st and 6th Sts. (bids opened June 2) awarded as follows: 1st St. to General Contr. Co., Minneapolis, $24,986 and 6th St. to Aug. Bodin, Duluth, $20,423. L. Ayers, City Engr.

★**St. Paul, Minn.**—Contract for 276½ tons of asphalt for paving Congress, Concord, Isabel, Plum and E. 3d St., awarded by City Purchasing Com. to Pierce Oil Cor., St. Louis, Mo., at $12.73 per ton.

Contract for furnishing 30,000 bbls. cement for Snelling Speedway awarded to Midway Sand & Cement Co.

★**Lincoln, Neb.**—Contract for paving with asphaltic concrete Dist. No. 308 awarded to Burke Cochrane Constr. Co., Lincoln, at $1.66 per sq. yd.; total cost about $18,000. Theo. H. Berg, City Clk.

★**Lewistown, Mont.**—Contract for paving with cement streets in 8th Ave. Dist. awarded by City Council to C. W. Johnson, Lewiston, at $10,319.

★**Colorado.**—Contracts awarded by State Highway Comn., Denver (J. E. Maloney, Secy. Engr.) for highway work as folows:

Aurora—To J. A. Osner, Denver, for sanding 3 miles of road east of Aurora near Denver about 2,400 cu. yds. at 69¼ cts. per cu. yd.

Alamosa—By Board of Construction for State Primary Road No 69, for 2½ miles completed road from canon of South Fork of the Rio Grande River, to C. J. Chapman, $8,150.

★**Elma, Wash.**—Contract for paving several streets with asphalt awarded by City Council to Washington Paving Co., Savage-Scofield Bldg., Tacoma, at $48,000.

★**Montesano, Wash.**—Contract for hard-surfacing portion Elma Rd. awarded by County Comrs. to Washington Paving Co., Savage Scofield Bldg., Tacoma, at $14,500.

★**Olympia, Wash.**—Contract for paving Main St. awarded by City Council to Independent Asphalt Paving Co., Northern Bank Bldg., Seattle, at about $10,000.

★**Port Orchard, Wash.**—Contract for constructing Permanent Highway No. 2 and Highway No. 3, awarded by County Comrs. to A. E. Schold, Silverdale, at about $13,000.

★**Seattle, Wash.**—Contract for grading and graveling 8 miles Redmond-Issaquah Rd. awarded by County Comrs. to Horrocks Constr. Co., Lowman Bldg., Seattle, at $55,099.

★**Washington.**—Contract for constructing 7½ miles Permanent Highway between Vancouver and La Center awarded by State Highway Comn. to General Constr. Co., Spokane, at $25,036.

★**Washington**—Contract for constructing Pacific Highway 7⅓ miles from Vancouver to La Center awarded by State Highway Dept., Olympia, to General Constr. Co., Spokane, at $25,036.

Portland, Ore.—Lowest bid opened by city for paving Peninsular Ave. with concrete submitted by Cochrane-Nutting Co., Portland, at $23,602.

★Contracts awarded June 17 by Comrs of Multnomah County on bids opened June 7 for 70 miles of hard surfaced roads as follows:

Columbia River Highway, 26.20 miles, Sects. A, B and C, awarded to Warren Constr. Co., at $121,077, $29,807, $137,279 respectively; Sect. D, bitulithic, to Pacific Bridge Co., $155,333 and Sect. E, brick on concrete base, to Bovajohn-Arnold Co. and Hans Pederson, $22,921.

Sandy Road, 12.75 miles, Sects. A and B, bitulithic, both awarded to Warren Constr. Co., at $198,690 and $16,159 respectively.

Base Line Road, 8.83 miles, Sects. A and B, bitulithic, both awarded to Clark-Henry Constr. Co., $132,493 and $15,886 respectively.

Powell Valley Road, 7.62 miles, bitulithic, awarded to Oskar Huber for $121,604.

Foster Road, 4.38 miles, concrete, Wayne County mix, with armor joints, awarded to Montague-O'Reilly Co., $75,610.

Salvin Road, 4.34 miles, concrete, Wayne County mix, with armor joints, awarded to Montague-O'Reilly Co., $94,043.

Canyon Road, 1.67 miles, Sect. A, bitulithic, awarded to Boyajohn-Arnold Co. and Hans Pederson, $16,904, and Sect. B, concrete, Wayne County mix, with armor joints, awarded to Montague-O'Reilly Co., for $22,352.

★**The Dalles, Ore.**—Contract for constructing county roads across Tygh and White Rivers awarded by County Court to Henry Cromer, Lents, at $15,611.

★**El Monte, Cal.**—Contract for 121,820 sq. ft. macadam sidewalk and curb on Main St. (bids opened June 4) awarded to W. M. McComas, Bryson Bldg., Los Angeles, at $15,695. Other bids: Montgomery Contr. Co., Alhambra, $15,754; Bingham & Pendleson, Hermosa, $16,196. L. Worth Everett, City Clk.

★**Los Angeles, Cal.**—Contract for paving Medford and Soto Sts., 35,675 sq. ft. and 11,332 ft. respectively, with Warrenite, awarded by city to Bryant & Austin, 1650 Compton Ave., at $13,132.

Contract for paving 119,800 sq. ft. 15th St. with asphalt, awarded by city to Fairchild-Gilmore-Wilton Co., 396 Pacific Electric Bldg., at $20,437.

★**San Bernardino, Cal.**—Contracts for paving with concrete base and with crushed stone wearing surface awarded by city as follows: 2d St. to Tuttle & Deyoe, at $12,236, and I St. to Highway Constr. Co., at $15,380.

★**San Francisco, Cal.**—Contracts for paving awarded by Bd. Works as follows: San Bruno Ave. to City Street Improvement Co. $29,895, and Wisconsin St. to Eaton & Smith at $13,333.

★**Sausalito, Cal.**—Following are unit prices of lowest bidder, Clarke & Henery, of Stockton, successful contractors, on bids opened June 7 by Town Trus. (Leonard L. Hohl, Town Engr.) for paving:

95,578 sq. ft. grading	$0.02
95,578 sq. ft. concrete base	0.057
83,178 sq. ft. Topeka Specifications Bituminous surface	0.06
12,400 sq. ft. bituminous brick (hillside type)	0.18
12,400 sq. ft. vitr. brick (hillside type)	0.22
2,200 lin. ft. concrete curb and gutter	0.58
2,752 lin. ft. redwood curb and concrete gutter	0.50
3,150 lin. ft. redwood curb without gutter	0.19
3,160 lin. ft. plastering rock gutter in place	0.08
5 catchbasins	34.00
50 ft. 12-in. culvert	1.25
60 ft. 18-in. culvert	1.70
50 ft. 30-in. culvert	3.00
150 ft. 8-in. I. S. pipe	0.50
200 cu. yds. rubble concrete (gravity type seawall)	9.00
200 ft. iron pipe hand rail	0.60
Valve frames	5.00
1:2:4 concrete, miscellaneous	16.00

Stockton, Cal.—Lowest bid opened by San Joaquin and Contra. Costa Bd. Superv. June 8 submitted by Tibbitts-Pacific Co., at $71,490.

★**Idaho**—Contract awarded by State Highway Dept., Boise (E. M. Booth, State Highway Engr.), for constructing 6 miles of the Idaho Pacific Highway in Washington County, to S. C. Comerford, Boise, at $6,283.

★**Montreal, Que.**—Contract for constructing sidewalks on 33 streets with mastic asphalt awarded by Bd. Control to Sicily Asphalt Co., at $1.98 per sq. yd., total about $65,000.

STREET CLEANING AND GARBAGE DISPOSAL

BIDS DESIRED.

East Chicago, Ind.—Until July 16 by City Clerk for garbage disposal plant capable of disposing of 20 tons of garbage in 12 hrs. Bids to include plans.

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS

PROPOSED WORK.

Dock—Providence, R. I.—The Council Com. on Harbors has decided to ask City Council for permission to complete work of developing Providence Harbor including erection of necessary sheds, steam travelling cranes, and other work, estimated at $200,000. The sea wall 3000 ft. in length also completed.

Power Plant—Watertown, N. Y.—Northern New York Utilities Inc., Watertown, contemplates constructing power plant at Elmers Falls on Beaver River, 1½ miles above plant at Taylorville.

Dyking—Olean, N. Y.—Citizens voted $150,000 bonds June 18 for flood abatement. The scheme includes dyking Allegheny River, Olean Creek and tributaries, and reclaiming tracts of swamp land for park purposes.

State Legislature Jan. 1914 appropriated $150,000 for above work on condition that city appropriate a like sum. The work, which will cost a total of $300,000, will be done under direction of Supt. of Pub. Wks., Albany, and the bill provides for a local commission to look after Olean's interests. Rights-of-way have been secured and preliminary plans completed. The intention is to start work at once.

Piers—Baltimore, Md.—Local press reports state the 8 municipal piers extending into Spring Gardens branch of the Patausco from city end of present Light St. bridge to Western Maryland Ry. bridge near Westport, are provided for in a plan for the development of southern waterfront prepared by Maj. Jos. W. Shirley, Ch. Engr. of the Topographical Survey Comn. The development also includes widening Hanover St., south of Fort Ave., widening Wells St. and elimination of Baltimore and Ohio grade crossings on Wells St. and the Western Maryland Railway grade crossing at Hanover and Donaldson Sts. Plans are also being considered by city officials. H. K. McCay, City Engr.

Pier — Baltimore, Md. — Pennsylvania R. R. Co. (F. Duane, Div. Engr., Baltimore), reported to be considering construction of new coal pier and machinery for handling coal at Canton, to cost about $1,000,000.

Sea Wall—Bradentown, Fla.—City and property owners interested in construction of sea wall and boulevard along river front.

Drainage—St. Augustine, Fla.—Bonds reported sold by County Comrs. for Elkton drainage system.

Wharf—New Decatur, Ala.—City Council reported to have purchased property along Tennessee River at Bank St., to be used as site for wharf.

Wharf—Tuscaloosa, Ala.—City Comn. reported considering construction of wharf on river, to cost $25,000.

Docks—Memphis, Tenn.—Memphis Terminal Cor., considering construction of docks along river front below R. R. bridges and south of Iowa Ave.

Ditch Bonds — Shelby, O. — Reported bonds for $24,200 for county ditch improvement wil be sold July 6 by Geo. P. Staley, Co. Aud.

Ditch—Belvidere, Ill.—Comrs. of Coon Creek Drainage Dist. completed plans to straighten, widen and deepen Coon Creek, about 4 miles; also for a lateral ditch about 1¼ miles long; estimated cost $78,000. A. L. Webster, Engr., Wheaton.

Piers, Etc.—Evanston, Il.—Bids will probably be called for in August for improving shore line from Northwestern University ground south to southern limits of city, including erection of piers and improving beach; it will probably be of wood crib type, cost $50,000. Address, J. H. Moore, Comr. Pub. Wks.

Waterway — Springfield, Ill.— Governor signed waterway bill which provides for construction of an 8-ft. channel, connecting Chicago drainage canal with Illinois River, thereby creating a direct water route between Great Lakes and Gulf of Mexico via Mississippi River.

Power Plant, Etc.—La Crosse, Wis.—Wisconsin-Minnesota Light & Power Co., Eau Claire, will spend $210,000 in erection of new power station, new machinery and apparatus and rehabilitation of its central heating system in La Crosse; it is also proposed to bring hydro-electric power into La Crosse from the north.

Channel Work—St. Paul, Minn.—Local press reports state that the Directors of the Union Depot Co. (W. C. Armstrong, Ch. Engr.) have rejected all bids recently received for changing channel of Mississippi River; as soon as authority is received from U. S. War Dept. to change channel new bids will be called for.

Irrigation—Worland, Wyo.—Plans being prepared by C. E. Hayden, of Cody, irrigation system near Worland to include 35 miles of ditches, several reservoirs, etc.; cost about $100,000.

Drainage — Texas City, Tex. — City Comn. wil probably call election soon to vote $200,000 bonds for an underground drainage system.

Drainage—Waco, Tex.—Robt. J. Potts has submitted to County Comrs. his report on drainage system for Drainage Dist. No. 1 of McLennan County, which comprises East Waco and adjacent territory, and estimates cost at $73,703.

Irrigation — Artesia, N. M. — F. A. Manda, of Artesia, filed notice of intention to store 3,000 acre ft. of the surplus waters of Penasco River and Walnut Creek to irrigate tract of 3,000 acres.

Irrigation—Hope, N. M.—F. A. Yoakum, of Hope, reported to have filed with State Engr., at Santa Fe, notice of intention to appropriate 5-second ft. from Penasco River to irrigate 480 acres.

Irrigation—Prosser, Wash.—Petition being signed and will be presented to the Benton Co. Comrs. for the establishment of Horse Heaven irrigation districts to include 100,000 acres of irrigable land in Benton, Klickitat and Yakima Counties on the Horse Heaven plateau. H. M. Street, of Seattle, president of the association, has matter in charge.

★Creosoted Piles—San Francisco, Cal.—Contract reported awarded June 10 by Harbor Bd. to J. M. Coleman, for creosoted piles at $15,605.

Levee—Yuba City, Cal.—County Superv. will probably spend about $50,000 for new levees.

BIDS DESIRED.

Dredging—Jacksonville, Fla.—Until July 24 by U. S. Engineer, for dredging and rock removal in St. Johns River, Fla., advertised in Engineering Record.

Dam—Sylacauga, Ala.—Until June 29 by J. E. Jordan, City Clk., for constructing concrete dam, approximate 250 ft. long and 9 ft. high, at the city's hydro-electric plant at Hatchett Creek, 16 miles from Sylacauga.

Drainage Work—Westlake, La.—Reported desired until July 7 by W. H. Managan, Pres. Sulphur Drainage Dist. No. 2 for 15 miles open ditches. F. Shutts & Son, Engrs., Lake Charles.

Drainage Work—Selmer, Tenn.—Reported desired until July 9 by Bd. Directors Big Snake Creek Drainage Dist., for constructing canal; about 253,844 cu. yds. earth to be removed. Canal as surveyed is 12½ miles long, 22 ft. wide at top, 15 ft. wide at bottom and 7 ft. deep, and includes 3 laterals 4900 ft. long. J. C. Houston, Selmer, Attorney.

Ditch—Rosseau, Minn.—Reported desired by S. G. Bertilrud, Co. Aud. for following:

Until June 29, ditch No. 21, 29 miles, including 107 12 x 24 culverts, estimated cost $34,235.

Until Aug. 15 Judicial Ditch 61 and 62, 110 miles, 1,400,000 yds. open ditch dredge work. Geo. A. Ralph, Engr., Shubert Bldg., St. Paul.

Steel Doors on Pier—Panama—Until July 13 by Maj. F. C. Boggs, Corps Engrs. U. S. A., General Purchasing Officer, The Panama Canal, Washington, D. C., for steel doors for sheds on Pier No. 7, Cristobal, and Pier No. 18, Balboa, advertised in Engineering Record.

PRICES AND LETTINGS.

★Indicates award of contract.

★Repairs to Piers, Boston, Mass.—Contract awarded by Bureau Yards and Docks, Navy Dept., Washington, D. C., for Spec. 2167, Repairs to Pier 5, including pile driving and timber wharf work at Navy Yard, to Geo. P. Rendle Co., 270 Condor St., East Boston, at $9,064 (bids opened June 12).

Dredging—Block Island, R. I.—Lowest bids opened June 16 by Col. John Millis, Corps Engrs., Newport, for dredging harbor at Block Island, 84,160 cu. yds. (price given per cu. yd.): Chas. M. Cole, Fall River, Mass., 19.75 cts.; J. S. Packard Dredging Co., Providence, 22.88 cts.; Bowers Southern Dredging Co., Galveston, Tex., 23.1 cts.; Coastwise Dredging Co., Norfolk, Va., 24 cts.

Pier—Brooklyn, N. Y.—Lowest bid opened June 18 by R. A. C. Smith, Comr. Docks, New York City, for Contr. 1209, erect new pier at foot of 30th St., Boro. Brooklyn, submitted by W. P. Seaver & Co., 322 5th Ave., New York, at $196,263.

Pier—Erie, Pa.—Following bids opened June 19 by Capt. L. V. Frazier, Federal Bldg., Buffalo, N. Y., for constructing concrete superstructure on north pier Erie Harbor: (a) Lake Shore Contr. Co., Cleveland, O., $32,047; (b) H. S. Kerbaugh, Inc., Buffalo, N. Y., $32,685; (c) Great Lakes Dredge & Dock Co., Buffalo, N. Y., $34,837; (d) T. A. Gillespie Co., Pittsburgh, $30,248; (e) Candler Dock & Dredge Co., Detroit, Mich., $31,240.

	(a)	(b)	(c)	(d)	(e)
540 lin. ft. remove old superstructure	$12.50	$12.50	$12.50	$9.00	$16.00
25 M. ft. new timber	75.00	90.00	100.00	74.00	72.00
60 timber filler-blocks	5.00	4.00	6.00	.60	10.00
810 cu. yds. concrete blocks	9.75	9.50	11.70	9.70	9.15
2100 cu. yds. mass concrete	7.25	7.50	7.50	7.45	6.09

★River Wall—Johnstown, Pa.—Contract for constructing retaining wall along River Ave., and paving Fairfield Ave. awarded to M. M. Sheesley & Sons, at $7,987. J. W. Cramer, City Clk.

Channel Work—Philadelphia, Pa.—Following are bids opened June 21 by Col. Geo. A. Zinn, Corps Engrs., U. S. A., for construction of channel in Delaware River, opposite Port Richmond coal piers, in upper end of Philadelphia Harbor, channel 2,000 ft. long, 1,000 ft. wide, 35 ft. deep at mean low water; work involves removal of about 900,000 cu. yds. (price given per cu. yd.): Maryland Dredging & Contr. Co., Baltimore, Md., 24.9 cts.; Bowers Southern Dredging Co., Galveston, Tex., 26.3 cts.; American Dredging Co., Philadelphia, 27.4 cts.; Coastwise Dredging Co., Norfolk, Va., 28.5 cts.

★Stone—Wilmington, N. C.—Contract to furnish and deliver about 19,700 tons crushed stone or gravel awarded by U. S. Engineer at Wilmington, to Virginia Sand & Gravel Cor., Norfolk, Va., at $39,260.

★Wharf Sheds—Jacksonville, Fla.—Contract for constructing structural steel sheds on Municipal Terminals and roofing and siding (metal); bids opened June 10 by Port Comn. (F. W. Bruce, Ch. Engr.), awarded to Chesapeake Iron Works, Baltimore, at $33,160 and $24,738, respectively; total $57,898; construction of foundations awarded to O. P. Woodcock, at $5,118.

Construction of administration building (bids called for May 17) indefinitely postponed.

★Levee Work—New Orleans, La.—Contract awarded by Bd. State Engrs. (G. W. Lawes, Secy.), to D. B. Hearin & Son, Baton Rouge, for levee work on Mississippi River as follows: Scott levee, 11.22 cts. per cu. yd.; Armant to Magnolia levee, 9.4 cts.; Whitney and Jack Strange levees, 8.98 cts.

★Lock Gates, etc.—Vicksburg, Miss.—Following are 4 lowest bids opened June 15 by Maj. J. R. Slattery, Corps Engrs., U. S. A., for furnishing steel lock gates, valves and Poiree trestles, etc., for use in constructing Lock and Dam 3 on Ouachita River at Call Landing: Independent Bridge Co., Beaver Ave., N. S., Pittsburgh, Pa., $17,718 (recommended for acceptance); Louisville Bridge & Iron Co., 11th and Oldham Sts., Louisville, Ky., $17,900. J. & J. B. Milholland Co., 714 5th Ave., Pittsburgh, Pa., $18,905; Steacy Schmidt Mfg. Co., York, Pa., $18,990.

★Power House at Dam 29—Ashland, Ky.—Contract for building a power house at Dam 29, Ohio River, near Ashland, Ky., awarded to Geo. W. Ward & Son, Ashland, at $18,777 (bids opened June 15 by Lieut.-Col. H. Jervey, Corps Engrs., U. S. A., Cincinnati, O.).

Mitering Guard Gate—Louisville, Ky.—Lowest bid opened June 4 for erecting mitering guard gate for Lock 41, Ohio River, submitted by American Bridge Co., Union Trust Bldg., Cincinnati, as follows: 350,204 lbs. structural steel, 3.57 cts.; 18,236 lbs. cast steel, 7.15 cts.; 1900 lbs. nickel steel, 10.4 cts.; 2676 lbs. forged steel, 5.8 cts.; 4210 lbs. steel, 5.8 cts.; 472 lbs. cast iron, 6.35 cts.; 708 lbs. phosphor bronze, 54.3 cts.; 48 lbs. Babbitt, 33 cts.; 1454 M ft. white oak, $54; 772 M ft. yellow pine, $48; total $14,949. Next 3 lowest bids: Independent Bridge Co., Pittsburgh, Pa., $17,056; Whitehead & Kales Iron Wks., Detroit, Mich., $17,874; Alliance Structural Co., Alliance, $19,515.

★Power Plant—Fremont, O.—Contract reported awarded to Worden-Allen Co., Chicago, Ill., at $500,000 for construction of auxiliary steam power house at Ballville, for Ohio State Power Co., which has taken over hydro-electric power plant and other property of Sandusky River Power Co.

★Ditch—Anderson, Ind.—Contract for constructing Peters et al Ditch awarded to Daniels & Tyst, of Anderson, at $30,125. Wm. F. McVaugh, Drainage Comr.

Power Plant Excav., Etc.—Detroit, Mich.—The only bid received June 15 by Lieut.-Col. Mason M. Patrick, Corps Engrs., U. S. A., Detroit, for excav. of earth and rock, U. S. Power Plant Tail Race, St. Marys River, Mich., was submitted by Great Lakes Dredge & Dock Co., Chicago, Ill., at the following bid: Excav. of material Class A, $1.25; Class B, $3.10 and $2.35; Class C, $1.50.

★Stone—Harbor Beach, Mich.—Contract reported awarded to Wm. J. Maegher & Co., Bay City, for placing riprap stone along lake face of main breakwater, Harbor Beach, at $63,750.

★Ditch — Fairmont, Minn.—Contracts reported awarded by Co. Comrs. as follows: Ditch No. 46, to Ceylon Cement Tile Co., Ceylon, at $10,990, and Ditch No. 27, to Joel Brahy, Sherburn, at $6,595. H. C. Nolte, Co. Aud.

★Dredge, Etc.—Kansas City, Kan.—Contract for construction and delivery of an hydraulic dredge, discharge pipe line and accessories for the improvement of the Kansas River, awarded by Directors Kaw Valley Drainage Dist. (P. J. Broll, Secy.), to Morris Machine Works, Baldwinsville, at $62,000; Bucyrus Co., S. Milwaukee, Wis., $65,400; Ellicott Machinery Cor., Baltimore, $84,843.

★Ditches — Everett, Wash. — Contract awarded by Co. Comrs. to Geo. P. Wright, Tacoma, at $33,829 for constructing drainage ditches in Drainage Dist. No. 4, situated in La Grande Marsh, between Snohomish and Monroe (bids opened June 14). H. P. Niles, is Engr. of Drainage Dist. No. 4.

Canal Excavation—Payson City, Utah—Folowing reported to be bids opened June 16 at office of U. S. Reclamation Service, Provo, for construction, involving about 25,000 cu. yds. canal excavation, and about 2600 cu. yds reinforced concrete near Payson City: Heuser & Sims, Salt Lake City, $35,500, and Morrison-Knudson Co., Boise, Idaho, $42,000.

ELECTRIC RAILWAYS

PROPOSED WORK.

Athens, Me.—Plans being considered by Skowhegan & Athens Electric R.R. Co. to build an electric railroad from Skowhegan to Athens, via East Madison and North Cornville, 12 miles.

Olean, N. Y.—O. P. Brown, Olean, and others considering plans to build an electric railway between Olean and Cuba.

Troy, N. Y.—Plans being considered by Troy Chamber Commerce for construction of an electric railway from Rensselaer to Troy.

Charleston, W. Va.—Charleston Interurban R.R. Co. contemplates building 4 substations. S. Miller Gallaher, Ch. Engr., Charleston.

Durham, N. C.—Alamance, Durham & Orange Ry. & Electric Co. contemplate constructing line from Ossippee to Durham. Junius Harden, Burlington, is interested.

St. Petersburg, Fla.—St. Petersburg & Gulf R. R. Co. contemplates extending line from Jungle to Pinellas Park and Clearwater.

Alexandria, La.—Plans being considered to build an electric railroad in Alexandria. T. T. Constant, Alexandria, is interested.

Monroe, La.—See "Water Works."

Nashville, Tenn.—Nashville, Springfield & Northern R. R. Co. incorporated to build an electric railway between Nashville, Springfield and Clarksville, Tenn., and Franklin, Ky., distance 80 miles. E. G. Stribbling, Nashville, Pres.; Robt. Leonard, Secy. and Treas.

Lebanon, Ky.—Right-of-way has been secured for constructing an electric railway to connect Lebanon and Smithville. Charles Edwards and White & Co., Chicago, Ill., said to be interested.

St. Marys, O.—Plans are being considered by Western Ohio R.R. Co. to extend line from St. Marys south to Covington, via Minster and Ft. Loramie. J. W. S. Riegle, Ch. Engr., Findlay.

Muskegon, Mich.—Plans being considered by Muskegon-Saginaw Electric Co. for extending line from St. John via Crystal, Carson City and Maple Rapids.

Pearl, Ill.—Calhoun County R.R. Co. will build railway from Pearl to Golden Eagle. John E. Melick, Kampsville, is interested.

Minneapolis, Minn.—Twin City Rapid Transit Co. contemplates track extensions requiring about 20 miles single track with overhead construction work.

Winfield, Kan.—Plans being considered by Southwestern Interurban Ry. Co. (J. Carson, Ch. Engr., Hackney) to extend line from Winfield to Albright Gardens, near Oxford.

Kansas City, Mo.—D. M. Proctor plans to construct an electric railway in Kansas City.

Mexico, Mo.—Plans being considered by Mexico Investment & Constr. Co. to build a railway from Mexico southwest 14 miles.

Beeville, Tex.—Plans being considered for constructing railway to connect Beeville, Cadiz, Oakville and Three Rivers, 25 miles. C. O. Williams, Corpus Christi, is interested.

Portland, Ore.—O. M. Clark contemplates constructing railway from Portland to Linnton.

United Rys. Co. contemplates constructing extension from Portland to Oilton.

San Francisco, Cal.—Contract about to be let for building Church St. Line from Market St. over Church St. Hill for Municipal Rys. San Francisco.

Granby, Que.—Montreal & Southern Counties Ry. Co. plans to construct a substation at Granby. H. R. Safford, Ch. Engr., Montreal.

BIDS DESIRED.

Brooklyn, N. Y.—Until July 9 by Public Service Comn. for First Dist., 154 Nassau St., New York, for track laying on New Utrecht Ave. elevated line in Brooklyn, advertised in Engineering Record.

Cincinnati, O.—Until June 29 by Philip Fosdick, Dir. Pub. Service, for installation of car tracks on Hopple St. viaduct.

★Brooklyn, N. Y.—Following are totals of bids opened June 15 by Public Service Comn., 1st Dist., 154 Nassau St., New York, for constructing Sect. 1 of Route No. 29, part of Eastern Parkway Rapid Transit R.R. (Nostrand Ave. branch), Boro. Brooklyn: (a) Newman & Carey, 215 Montague St., Brooklyn, $2,073,303 (awarded contract); (b) Underpinning Foundation Co., $2,187,287; (c) D. Donegan Co., Brooklyn, $2,342,401; (d) Rodgers & Hagerty, Inc., $2,376,310; Dock Contractor Co., $2,392,608; MacArthur Bros. Co., $2,512,485; T. A. Gillespie Co., $2,534,532; Chas. Cooper, $2,539,049; E. E. Smith Contr. Co., $2,633,766; Degnon Contr. Co., $2,765,887; Frawley Kaufman Contr. Co., $2,834,736; Arthur McMullen, $2,904,029; Oscar Daniels Co., $2,944,287; John J. Creem Co., Brooklyn, $3,331,566 (bidders of New York, unless otherwise mentioned).

Unit prices of 4 lowest bidders—a, b, c and d:

Item			*(a)	(b)	(c)	(d)
1	370,600	cu. yds. earth excav. above mean high water	$2.12	$1.80	$2.10	$2.85
2A	33,000	cu. yds. earth excav. above and below mean high water, sewers	1.17	1.80	2.10	2.85
4	1,690	lin. ft. (a) underpin. bldgs. under 7 stories	29.00	40.00	34.00	1.00
4E	1,800	lin. ft. maintain, protect and secure bldgs.	14.50	40.00	34.00	1.00
6	56,200	cu. yds. concrete masry	7.00	8.30	7.00	7.50
7	5,640	cu. yds. protective concrete masry	5.50	8.30	7.00	7.50
8	20	cu. yds. rubble stone masry	10.00	6.50	8.00	5.00
8A	20	cu. yds. dry rubble masry	10.00	6.00	6.00	3.00
9	10	cu. yds. brick masry	20.00	20.00	18.00	15.00
9A	2	cu. yds. vitr. brick masry	40.00	20.00	30.00	30.00
10	40	cu. yds. hollow terra cotta brick or tile masry.	15.00	25.00	15.00	15.00
11	1,000	bbls. Portland cement grout	2.40	1.60	2.50	2.50
12	1,000	lin. ft. timber piles in place and prepared	0.60	0.20	0.25	0.25
13	2	M ft. timber foundns., place and fasten	50.00	40.00	30.00	30.00
14	50	cu. yds. broken stone or gravel	3.00	3.00	3.50	2.00
15	15,500	sq. yds. (a) waterproofing, 1-ply	0.36	0.40	0.45	0.35
15	100	sq. yds. (b) waterproofing, 2-ply	0.75	0.80	0.85	0.60
15	35,000	sq. yds. (c) waterproofing, 3-ply	0.95	1.20	1.00	0.80
15	100	sq. yds. (d) waterproofing, 4-ply	1.25	1.60	1.40	1.15
15	100	sq. yds. (e) waterproofing, 5-ply	1.50	2.00	1.80	1.40
15	210	sq. yds. (f) waterproofing, 6-ply	1.85	2.40	2.10	2.00
15	100	sq. yds. (i) waterproofing, dry ply	0.20	0.35	0.40	0.35
16	2,180	cu. yds. waterproofing, brick in asphalt mastic	23.00	20.00	23.00	20.00
17	50	lin. ft. (a) drain pipe, 12 in., vitrified	0.50	1.20	1.00	0.75
	50	lin. ft. (b) drain pipe, 10 in., vitrified	0.50	1.00	1.00	0.65
	50	lin. ft. (c) drain pipe, 8 in., vitrified	0.40	0.80	0.75	0.50
	50	lin. ft. (d) drain pipe, 6 in., vitrified	0.40	0.60	0.75	0.45
	50	lin. ft. (e) drain pipe, 4 in., vitrified	0.30	0.40	0.50	0.40
	50	lin. ft. (g) drain pipe, 6 in., cast-iron	1.00	2.50	1.00	1.00
	50	lin. ft. (h) drain pipe, 4 in., cast-iron	0.80	1.60	0.75	0.50
	200	lin. ft. (i) drain pipe, 10 in., cast-iron	1.80	3.00	2.30	2.50
17A	100	lin. ft. (a) 3-in. "extra heavy" c.-i. pipe and fittings	0.60	1.50	0.75	1.00
	350	lin. ft. (b) 4-in. "extra heavy" c.-i. pipe and fittings	0.80	1.60	1.25	1.25
	300	lin. ft. (c) 6 in. "extra heavy" c.-i. pipe and fittings	1.20	2.50	1.50	1.50
	300	lin. ft. (d) 8 in. "extra heavy" c.-i. pipe and fittings	1.40	3.00	2.00	2.50
18	263,800	duct ft. tunnel ducts in place	0.11	0.20	0.11	0.12
18A	56,100	duct ft. railroad ducts in place	0.22	0.20	0.12	0.15
19	2,600	tons riveted steel, painted and erected.	60.00	52.00	58.00	55.00
20	3,815	tons steel beams and shapes, with connections	40.75	42.00	52.00	55.00
21	735	tons steel rods and bars built in concrete	43.00	70.00	57.00	50.00
25	35	tons miscellaneous iron castings	75.00	90.00	70.00	65.00
25C	3	tons miscellaneous iron furnishings	75.00	100.00	70.00	100.00
26	20	lbs. special wire forms, in place	1.00	0.25	0.25	0.10
27B	9,760	lin ft. 1¾-in. seasoned oak hand rail, in place	0.30	0.30	0.45	0.26
28	11,750	sq. ft. steel gratings for ventilation	1.70	1.00	1.50	1.50
29	1,500	sq. ft. vault lights, in place	1.30	1.00	1.50	1.25

Continuation of Sect. 1 of Route No. 29, part of Eastern Parkway Rapid Transit R. R.

30	4,750 sq. yds. (a) sidewalks restored	3.00	1.35	1.25	1.35
	1,120 sq. yds. (e) repavt. of roadways, asphalt	2.50	2.20	2.50	2.50
	26,700 sq. yds. (f) repavt. of roadways, granite block	0.75	0.80	2.00	0.25
	9,400 sq. yds. (ff) repavt. of roadways, Belgian block	0.40	0.80	2.00	0.25
	100 lin. ft. (i) new bluestone curb, in place.	1.50	2.00	1.30	1.00
	100 lin. ft. (k) new 8-in. granite curb	2.50	2.50	2.25	2.00
31	95 sq. yds. park surface restored, all classes	2.00	2.00	1.00	1.00
32	15,500 lin. ft. (a) ¾-in. wrought-iron electric conduits	0.19	0.20	0.25	0.15
	800 lin. ft. (b) 1½-in. wrought-iron electric conduits	0.30	0.40	0.50	0.25
	450 lin. ft. (c) 2-in. wrought-iron electric conduits	0.45	0.50	0.75	0.30
	4,500 lin. ft. (d) 1-in wrought-iron electric conduits	0.25	0.30	0.40	0.20
33	1,250 cast-iron outlet boxes, each	1.00	1.50	1.30	1.00
33A	10 cast-iron pull boxes, each	1.12	1.50	12.00	2.00
34	300 lin. ft. (a) 6-in. c.-i. pipe and fittings, "extra heavy"	1.20	2.50	1.30	1.50
34	150 lin. ft. (b) 3-in. c.-i. pipe and fittings, "extra heavy"	0.60	1.50	0.90	1.00
37	3,460 lin. ft. sewer pipe, 12 in., vitr.	0.50	3.60	2.50	2.40
38	1,000 lin. ft. sewer pipe, 15 in., vitr.	0.85	2.80	3.00	2.75
39	100 lin. ft. sewer pipe, 18 in., vitr.	1.40	5.00	3.00	3.25
40	100 lin. ft. sewer pipe, 20 in., vitr.	1.75	5.00	4.00	4.00
40A	100 lin. ft. sewer pipe, 22 in., vitr.	2.00	5.00	5.00	4.50
41	1,300 lin. ft. sewer pipe, 24 in., vitr.	2.00	6.00	5.00	4.50
42	60 tons sewer pipe, c.-i., straight	50.00	40.00	50.00	40.00
43	12 tons sewer pipe, c.-i., special	100.00	80.00	72.00	75.00
45	1,060 lin. ft. sewer, egg-shaped, 3 ft. 6 in. x 2 ft. 4 in.	3.60	6.00	7.50	6.00
46	140 lin. ft. sewer, egg-shaped, 3 ft. 9 in. x 2 ft. 6 in.	4.00	6.00	8.50	6.25
49	50 lin. ft. sewer, egg-shaped, 4 ft. 6 in. x 3 ft. 0 in.	6.00	6.00	10.00	8.00
53	650 lin. ft. circular sewer, 4 ft. 0 in. diam.	5.00	7.00	10.00	6.00
55	1,280 lin ft. circular sewer, 4 ft. 9 in. diam.	7.30	9.50	12.00	8.50
56	1,600 lin. ft. circular sewer, 5 ft. 0 in. diam.	8.00	11.00	12.00	9.00
56A	2,620 lin. ft. circular sewer, 5 ft. 3 in. diam.	8.25	11.25	13.00	9.25
57	350 lin. ft. circular sewer, 5 ft. 6 in. diam.	9.00	12.00	13.00	9.50
74H	2 12-in. iron bronze sluice gates, with spigots, each	75.00	200.00	75.00	50.00
75	15,000 lin. ft. (c) for electric (overhead trolley) railroads, one track	2.30	0.50	4.00	0.25
78	350 lin. ft. water pipe, 4 in.	0.35	0.60	1.00	0.30
79	1,400 lin. ft. water pipe, 6 in.	0.35	0.90	1.00	0.40
80	1,400 lin. ft. water pipe, 8 in.	0.50	1.20	1.30	0.50
82	150 lin. ft. water pipe, 12 in.	0.60	1.80	1.60	0.75
83	75 lin. ft. water pipe, 16 in.	0.85	2.40	2.50	0.90
84	1,920 lin. ft. water pipe, 20 in.	1.20	3.00	3.10	1.25
88	300 lin. ft. water pipe, 48 in.	5.50	7.00	10.00	4.00
88A	100 service connections for water pipes, ea.	12.00	20.00	20.00	25.00
89	250 lin. ft. gas pipe, 3 in.	0.35	0.50	0.50	0.30
90	700 lin. ft. gas pipe, 4 in.	0.35	0.60	0.50	0.40
91	650 lin. ft. gas pipe, 6 in.	0.35	0.90	0.75	0.50
92	300 lin. ft. gas pipe, 8 in.	0.50	1.20	1.00	0.60
93	1,900 lin. ft. gas pipe, 10 in.	0.60	1.50	1.50	0.70
94	100 lin. ft. gas pipe, 12 in.	0.75	1.80	1.50	0.75
95	1,850 lin. ft. gas pipe, 16 in.	0.90	2.00	2.00	1.25
95B	450 lin. ft. gas pipe, 42 in.	4.50	8.00	7.00	4.00
96	80 lin. ft. gas pipe, 20 in.	1.25	2.00	4.00	1.50
97	50 lin. ft. gas pipe, 24 in.	1.50	2.00	4.00	2.00
99A	8,000 lin. ft. (a) 6-in. by-passing pipe	1.00	3.00	2.50	2.50
	7,300 lin. ft. (b) 8-in. by-passing pipe	1.40	3.00	3.00	3.50
	2,000 lin. ft. (d) 12-in. by-passing pipe	2.50	3.50	4.50	4.50
	650 lin. ft. (h) 4-in. by-passing pipe	0.85	2.50	2.00	2.00
99B	350 lin. ft. (a) 12-in. by-passing pipe, on trestle	3.50	3.50	8.00	3.50
	1,550 lin. ft. (b) 16-in. by-passing pipe, on trestle	4.50	5.00	8.00	5.00
	170 lin. ft. (f) 6-in. by-passing pipe, on trestle	1.10	3.00	5.00	2.00
	500 lin. ft. (ff) 36-in. by-passing pipe, on trestle	14.50	7.00	20.00	9.00
	500 lin. ft. (g) 8-in. by-passing pipe, on trestle	1.40	3.00	5.00	3.00
	1,300 lin. ft. (h) trestle to support by-passing pipes	2.40	3.00	3.00	2.50
	160 lin. ft. (i) catenary for over 16-in. pipe	7.50	12.00	1.00	2.50
	1,300 lin. ft. (j) catenary for 16-in. pipe and under	4.75	3.00	0.75	2.50
99D	250 service con. for gas pipes, all sizes, ea.	6.25	20.00	12.00	25.00
99E	Maintain and supp. 16-in. G main in Nostrand Ave. (lump sum)	23,000.00	1,550.00	3,000.00	500.00
100	75 tons new c.-i. hub and spigot straight pipe	34.00	40.00	45.00	30.00
101	30 tons new c.-i. hub and spigot special pipe	80.00	80.00	70.00	65.00
127	2,200 duct ft. electric ducts and conduits	0.40	0.75	0.50	0.50
127A	100 lin. ft. (a) 2½-in. w.-i. electric conduits	0.35	1.00	0.75	1.00
	100 lin. ft. (b) 3-in. w.-i. electric conduits.	0.40	1.00	1.00	1.00
	100 lin. ft. (c) 3½-in. w.-i. electric conduits	0.50	1.00	1.50	1.00
	100 lin. ft. (d) 4-in. w.-i. electric conduits.	0.60	1.00	2.00	1.00
	100 lin. ft. (e) 4½-in. w.-i. electric conduits	0.80	1.00	2.50	1.00
	650 lin. ft. (f) 2-in. Edison conduit	0.35	1.00	0.75	1.00
	50 lin. ft. (g) 2½-in. Edison conduit	0.40	1.00	1.00	1.00
	300 lin. ft. (h) 3-in. Edison conduit	0.45	1.00	1.50	1.00
127C	30 for service conn. for electric ducts, ea.	10.00	25.00	20.00	25.00
127D	100 duct ft. wooden electric ducts and conduits	0.25	1.00	0.80	1.00

RAILROADS

PROPOSED WORK.

Norfolk, Va.—Norfolk, Washington & New York Ry. Co., which will extend to this city from Norfolk through Virginia and Maryland Counties along Chesapeake Bay and Potomac River, is reported to have secured right of way through Maryland from Riverside to Shepherds, D. C., at which point it will connect with Baltimore & O. R. R.

Burlington, N. C.—Citizens reported to have voted $50,000 bonds to assist in construction of the A. D. & O. Railroad.

Shelby, N. C.—W. C. Riddick and C. L. Mann, of A. and M. College, Raleigh, reported making surveys for the Shelby-Cassar Railroad for which $120,000 bonds have been voted.

Charleston, S. C.—A charter is reported to have been granted to the Charleston Southern Ry. Co., to construct a railroad from Charleston to Hutchinsons Island, Savannah, a distance of 85 miles. Incorporators: Geo. E. Dargan and Bright Williamson, of Darlington, and Jas. D. Evans, of Florence.

Willacoochee, Ga.—Henderson Lumber Co., J. A. L. Henderson, Pres., Ocilla, reported to have purchased the O., P. & V. Railroad, which passes through this place. The railroad will be extended to Ocilla and Homerville.

Yazoo City, Miss.—Yazoo & Southwestern R. R. Co. reported formed to construct railroad from Yazoo City to Carthage. Walter C. Murphy, of Yazoo City and Wm. Kissock, of Chicago, Ill., reported among incorporators.

Huron, S. D.—F. W. Henderson, of Huron, and Chas. Wolfe are among promoters of Huron & Northwestern Ry. Co., reported formed to construct a railroad between Huron and Hankinson.

Youngstown, O.—Bonds for $800,000 for grade crossing elimination will be sold July 1 by Dan J. Jones, City Aud.

San Angelo, Tex.—Reported that the Orient system (E. Dickinson, Pres., Kansas City, Mo.), considering extension from San Angelo to Sonora via Christival and Eldorado.

Seattle, Wash.—Port of Seattle Comn., Central Bldg. (C. E. Remsberg, Secy.), considering construction of belt railway to connect trackage of piers, owned and operated by the Port Comn.; estimated cost, $33,000.

Portland, Ore.—Reported that the Oregon-Washington Railroad & Navigation Co. (J. R. Holman, Ch. Engr., Portland) will build 30-mile extension from Riverside westward to Crane Creek Gap; work estimated at $1,500,000.

Southern Pacific Ry. Co. (W. Hood, Ch. Engr., San Francisco, Cal.) reported to have decided to electrify its line between Whiteson and Corvallis, a distance of 43 miles.

Roseburg, Ore.—Roseburg & Eastern Railroad Co., reported incorporated with a capital of $1,000,000 to build a railroad from Roseburg eastwardly to western boundary of Umpqua National Forest and Umpqua River. Incorporators: Jos. Nicelli, J. F. Barker, A. T. Marshall and others.

Tucson, Ariz.—The Corporation Comn. at Tucson, is considering application of Tucson, Cornelia & Gila Bend Railroad Co., for permission to issue $675,000 bonds and stock to the same. The company will shortly begin the construction of the new railroad south from Gila Bend, Ariz., to the Ajo deposits, which are owned by the Calumet & Arizona Copper Co.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Meridian, Miss.**—Contract awarded by Meridian and Memphis Ry. Co. (J. T. Schley, Pres., Mobile, Ala.) to C. G. Kershaw Contr. Co., Birmingham, Ala., for grading on overhead portion of terminal line at Meridian. Work involves about 200,000 cu. yds. earthwork.

PUBLIC BUILDINGS AND SCHOOLS

PROPOSED WORK.

Waterville, Me.—Dormitory for boys, costing about $75,000, to be erected at Coburn Classical Inst.

Brandon, Vt.—Citizens of School Dist. voted $50,000 bonds to include erection of high school.

Easthampton, Mass.—Dormitory to be erected at Williston Seminary, Park St.

Medford, Mass.—Bd. Aldermen appropriated $45,000 for 8-room brick school on Hancock St.

Worcester, Mass.—Plans being prepared by L. W. Briggs Co., 314 Main St., for 8 room brick addition to Midland St. School.

Providence, R. I.—Bd. Aldermen June 17 appropriated $175,000 for grammar school on Charles St. Mayor Jos. Gainer, Chmn. School Bd.

Binghamton, N. Y.—Bonds for $233,700 for school improvements will be sold June 30 by D. W. Foster, City Clk.

Buffalo, N. Y.—$40,000 bonds for school No. 31 approved by Councilmen.

Hudson, N. Y.—Bd. Superv. voted $50,000 to erect jail.

Rochester, N. Y.—Foster & Gade, Rochester, prepared preliminary plans for auditorium proposed at Univ. of Rochester; cost $150,000.

Camden, N. J.—Bonds for $100,000 for school improvements sold.

Metuchen, N. J.—Bd. Educ. contemplating erecting 2-story brick public school on Thomas St.; cost $30,000.

Pleasantville, N. J.—Bonds for $48,000 for school improvements will be sold June 24 by Webster Price, City Treas.

Carbondale, Pa.—E. H. Davies, Scranton, selected to prepare plans for high school.

Clearfield, Pa.—Plans prepared by Harrington & Howard, DuBois, for 2 story brick school, costing about $80,000, selected by School Bd.

Gettysburg, Pa.—Trus. Pennsylvania College propose erecting $50,000 building for preparatory department.

Johnstown, Pa.—Bonds for $200,000 for school improvements to be sold July 6 by Bd. School Directors (Chas. H. Meyer, Secy.).

Hollidaysburg, Pa.—Plans for new high school to be prepared by Fred. J. Shollar, Altoona; cost $40,000.

Lansford, Pa.—Plans being prepared by John T. Simpson, Essex Bldg., Newark, N. J., for erecting 3-story brick and Indiana limestone, fireproof school, 150 x 250 ft., to cost $150,000.

Pittsburg, Pa.—Plans being prepared by Geo. S. Orth & Bro., Farmers Bank Bldg., for 3-story fireproof high school to be erected on Pucket Road, Homewood Dist., cost $250,000. Plans being prepared by Alden & Harlow, 307 Fifth Ave., for high school to be erected on Bailey Ave. and Mount Washington Dist.; cost $250,000.

Philadelphia, Pa.—Plans being prepared for a 9-division school to be erected at 2d St. Pike and Sanger St., 35th Ward; cost $80,000.

Warren, Pa.—Reported contract soon to be let by Emergency Hospital Trus. for erecting 2-story brick 65 x 110 ft. hospital; cost $40,000. F. H. Gruninger, Archt., Warren.

Shepherdstown, W. Va.—State Bd. Control authorized T. C. Miller, Pres. Shepherd College to erect dormitory; cost $26,000.

Burlington, N. C.—Citizens voted $40,000 bonds for school.

Greenville, N. C.—Citizens voted $30,000 school bonds.

Albany, Ga.—Plans for municipal auditorium to be prepared by A. Ten Eyck Brown, Atlanta; cost $40,000.

Atlanta, Ga.—Mayor signed finance sheet which includes $85,000 for extensions and improvements to schools.

New Smyrna, Fla.—Citizens voted $42,000 school improvement bonds, including erection of new building. Address School Trus.

New Smyrna, Fla.—Citizens voted $42,000 bond June 15 for erecting a school. C. R. M. Sheppard, DeLand.

Seabreeze, Fla.—Erection of school under consideration. Cost, including site, $50,000.

Birmingham, Ala.—Science building to be erected at Birmingham College; cost $30,000.

Jackson, Miss.—Bonds for $65,000 for school improvements will be sold July 6 by L. A. Scott, City Clk.

Memphis, Tenn.—Plans prepared by Mahin & Broadwell, for brick and stone semi-fireproof school; cost $30,000.

Nashville, Tenn.—Bonds for $625,000 for school improvements sold.

Lexington, Ky.—Plans being prepared by Anderson & Franklin, Lexington, for colored high school; cost $40,000.

Athens, O.—Trus. Ohio Univ. have plans for $120,000 dormitory for women.

Camden, O.—Plans of Edw. R. Thompson, Youngstown, for $65,000 school accepted. Address Bd. Educ.

Cleveland, O.—Plans prepared by Frank C. Warner, Hippodrome Bldg., for 4 story fireproof $100,000 dental college to be erected by Trus. Western Reserve Univ. A gymnasium costing $150,000 also contemplated.

Columbus, O.—Citizens of Brown Township voted $25,000 high school bonds.

Eaton, O.—Bonds for $35,000 for enlarging schools in Gratis Township sold.

Marion, O.—Bonds for $165,000 for school improvements sold.

Old Fort, O.—Citizens voted $45,000 grade high school bonds.

Woodsfield, O.—Bonds for $50,000 school improvements sold.

Lafayette, Ind.—Trus. Purdue Univ. approved plans for 2 story brick and stone building for Dept. Veterinary Science in School of Agriculture; cost, $50,000.

Marion, Ind.—No bids yet called for by Grant County Hospital Assoc. for its new hospital. Address F. L. Packard, Archt., Columbus.

Galesburg, Ill.—Reported State Armory Bd., Springfield, taking steps to erect $50,000 armory here.

Monmouth, Ill.—City Council reported to be considering erecting $50,000 city hall.

Bd. Superv. reported to be considering erecting $30,000 jail.

Minneapolis, Minn.—Plans being prepared by A. R. Van Dyck, McKnight Bldg., for a 3-story brick fireproof maternity hospital to cost $50,000.

Schuyler, Neb.—Citizens voted $45,000 high school bonds.

Grand Forks, N. D.—Reported contract recently awarded for erecting $200,000 high school has been considered irregular; new bids are to be asked by Bd. Educ.

Beaumont, Tex.—Plans being prepared for addition to South Park School; cost $40,000. Address School Trus.

Cleveland, Tex.—School Trus. selected Lane & Dowdy, Houston, architects, for $40,000 school.

Polytechnic (P. O. Ft. Worth), Tex.—Bd. Educ. considering erecting $40,000 high school.

San Angelo, Tex.—State Attorney General approved $80,000 high school bonds.

Eugene, Ore.—Bonds for $40,000 for city hall sold.

Berkeley, Cal.—John Galen Howard, Archt., Univ. of California, authorized by Bd. Regents to prepare plans for new buildings and also enlargement of present buildings at Univ., to include enlargement of Doe Library, cost $400,000; enlargement of reading room; new chemistry building, cost $250,000; new agricultural hall, cost $350,000.

Los Angeles, Cal.—$500,000 appropriated for high school on Country Club Drive and Wilshire Boule. John C. Austin, Los Angeles, Archt.

Los Angeles, Cal.—Plans completed by Elmore R. Jeffery and Frank R. Schaefer, Los Angeles, for 2-story brick school to be erected in Eagle Rock Ave.; cost $40,000.

Contract about to be let by Harbor Dept. at Los Angeles, for material required in construction of a 6-story concrete warehouse, 152 x 482 ft., on Municipal Dock No. 1.

San Bernardino, Cal.—Erection of new city hall, costing $175,000 for site and building, contemplated by Council.

San Rafael, Cal.—School Bd. approved plans for new high school.

BIDS DESIRED.

Warren, R. I.—Reported desired until July 1 by Bd. Educ. for erecting 8-room brick school. B. S. D. Martin, Archt., 86 Weybosset St., Providence.

Brooklyn, N. Y.—Until June 29 by Public Recreation Comn., Room 527 Municipal Bldg., New York (Geo. W. Wingate, Comr.), for erecting field house at Betsy Head Memorial Playground and Recreation Center, Brownsville, Boro. Brooklyn, also for heating and plumbing same.

Delhi, N. Y.—Until July 7 by Clerk Bd. Educ. for erecting 3-story concrete high school 72 x 90 ft., from plans of Pierce & Bickford, Elmira. Cost $57,000.

Syracuse, N. Y.—Until June 30 by Dr. Thos. E. Finegan, Asst. Comr. for Elementary Educ., Education Bldg., Albany, for erecting, including heating and plumbing, school building; also erecting and plumbing teachers' cottage at Onondaga Indian Reservation, near Syracuse. Lewis F. Pilcher, State Archt., Albany.

Tompkinsville, N. Y.—Until July 9 by J. T. Yates, Lighthouse Inspector, for erecting reinforced concrete carpenter shop at General Lighthouse Depot.

Hoboken, N. J.—Reported desired until June 28 by Bd. Educ. for alterations and additions to School No. 8; cost $60,000.

Allentown, Pa.—Until July 7 by T. P. Wenner, Secy. School Dist., for erecting 2 story and basement school on Dauphin St. Ruhe & Lange, Archts., 12 N. 6 St.

Curwensville, Pa.—By Bd. School Directors for erecting 4-room brick school. Separate bids for heating and plumbing. Address Julian Millard, Archt., Altoona.

Wanamie, Pa.—Until July 12 by Newport Township School Dist. (Jos. Dzialdowski, Secy., Glen Lyon), for erecting 2-story 8-room brick school on Main St. Owen McGlynn, Archt., Simon Long Bldg., Wilkesbarre.

Baltimore, Md.—Until Aug. 16 by Jas. A. Wetmore, Acting Superv. Archt., Washington, D. C., for erecting immigration station at Baltimore, advertised in Engineering Record.

Washington, D. C.—Until July 17 by U. S. Engineer Office, 305 Southern Bldg., for erecting brick storehouse at McMillan Park.

Ft. Myer, Va.—Until June 28 by Quarter Master for addition to field staff and band stable, advertised in Engineering Record.

Hemingway, S. C.—Until July 1 by Bd. Trus. (J. M. Eaddy, Chmn.) for erecting school. Jas. D. Benson, Archt., Charleston.

Quitman, Ga.—Until July 29 by Jas. A Wetmore, Acting Superv. Archt., Washington, D. C. for constructing 1-story and basement mezzanine, brick, terra cotta and stone-faced building for U. S. Post Office, including mechanical equipment; lighting fixtures and approaches.

Pensacola, Fla.—Until June 28 by C. W. Eggart, City Clk., for erecting building at water plant; cost $20,000.

Jackson, Miss.—Reported desired until July 7 by W. W. Downing, Chancery Clk., for erecting reinforced concrete jail. E. J. Hull, Archt., Daniel Bldg.

Canton, O.—Until July 8 by Bd. Educ. (W. C. Lane, Clk.) for erecting Henry C. Martin School. Frank L. Packard, Archt., Columbus.

Hamden, O.—Reported desired until July 6 by W. A. Devoss, Archt., Portsmouth, for erecting school.

Marion, O.—Until June 30 by Bd. Educ. Grand Prairie Township Rural School Dist. (W. D. Heller, Ck.), for erecting brick and stone school. Howard & Merriam, Archts., 8 E. Broad St., Columbus.

Winchester, Ind.—Until June 30 by Trus. Library Bd. for erecting brick library.

Albion, Mich.—Until July 30 by Jas. A. Wetmore, Acting Super. Archt., Washington, D. C. for constructing U. S. Post Office, including mechanical equipment, interior lighting fixtures and approaches.

Lansing, Mich.—Reported desired until July 2 by Bd. Control, Michigan School for Blind, for erecting administration building and dormitory at said school, also heating, plumbing. Edw. A. Bowd, Archt., Lansing.

Sandusky, Mich.—Reported desired until June 28 by Jos. E. Mills & Son, Archts., 1305 Kresge Bldg., Detroit, for erecting a 3-story court house.

Chicago, Ill.—Reported desired until June 30 by Bd. Educ. for erecting 3-story addition to Field School. A. F. Hussander, Archt., for Bd.

Milwaukee, Wis.—Reported desired until June 24 by Bd. School Dir. (Frank M. Harbach, Secy.), for erecting addition to 16th Ave. School.

Des Moines, Ia.—Reported desired until July 5 by Bd. Dir. Independent School Dist. for improvements including addition to West High School.

Woodward, Ia.—Until July 7 by Bd. Control of State Inst. Des Moines (F. S. Treat, Secy.), for erecting at State Hospital and Colony for Epileptics at Woodward, medical group—one 2-story and 9 one-story structures, a power plant, radial brick smokestack, 175 ft. high 7 ft. top, and 1-story laundry. H. F. Liebbe, State Archt. Des Moines, Proudfoot, Bird & Rawson, Consulting Archts., Des Moines.

Hibbing, Minn.—Reported desired until July 1 by Trus. School Dist. for erecting 2-story school; cost $24,000. W. T. Bray, Archt., Duluth.

Minneapolis, Minn.—Reported desired July 15 by Chapman & Magney, Archts., 509 Essex Bldg., for erecting reinforced concrete and brick building for Minnesota College; cost $60,000.

Owatonna, Minn.—Until June 29 by State Bd. Control, St. Paul, for erecting power house at State Public School, including heating, plumbing, etc. C. H. Johnston, State Archt., 715 Capital Bank Bldg., St. Paul.

Leonia, Kan.—Reported desired until July 1 by H. C. Kimmel, Treas. Bd. Educ. for erecting 2-story and basement school. White, Underhill & Dean, Archts., Bryant Bldg., Kansas City, Mo.

Bloomfield, Neb.—Reported desired until July 6 by W. R. Hoyt, City Clk., for erecting a 2-story brick city hall and jail.

King City, Neb.—Until June 30 by Bd. Educ. for erecting high school, including heating, plumbing, etc. J. H. Felt & Co., Kansas City, Mo., Archts.

Hardin, Mont.—Reported desired until July 6 by R. P. Ross, Co. Clk., for erecting county jail. Dedrick & Piper, Archts., Billings.

Kansas City, Mo.—Until June 29 by Edw. F. S. Webster, Acting Secy. Bd. Pub. Wks., for making alterations to 2-story brick buildings at 19th St. and Baltimore Ave., for police station.

Alleene, Ark.—Reported desired until July 3 by School Bd. for erecting 2-story brick school. J. H. Bliss, Archt., Hope.

Bradley, Ark.—Reported desired until July 1 by School Bd. for erecting 2-story brick school. J. H. Bliss, Archt., Hope.

Marlin, Tex.—Reported desired June 29 by County Comrs. Court for erecting jail; cost $25,000.

Davenport, Wash.—Reported desired until July 3 by H. L. Paige, Clk. School Dist. No. 14, for erecting school; cost $50,000. Archibald G. Rigg, Archt., Empire State Bldg., Spokane.

Portland, Ore.—Until June 30 by R. H. Thomas, School Clk., for general work of Franklin High School.

Los Angeles, Cal.—Reported desired by W. S. Garrett, Archt., 405 Currier Bldg., for erecting 2-story reinforced concrete hospital at College and Castelar Sts. for French Hospital Assoc. Cost $40,000.

San Diego, Cal.—Until July 24 by H. R. Sanford, Ch. Bureau Yards & Docks, Navy Dept., Washington, D. C. for power house, operating building, store house of stucco brick and steel frame, pump house, quarters for commanding officer, double quarters for chief operators, stuccoed wood frame construction, at the Naval Radia Station, Specification No. 2149.

Mountain Home, Idaho.—Until July 5 by F. M. Hobbs, Co. Aud. and Recorder, for prices and preliminary specifications for court house, ranging from $25,000 to $50,000, advertised in Engineering Record.

Brighton, Ont.—Until June 28 by E. C. Browne, Secy.-Treas. Bd. Educ., for erecting Union School. Ellis & Ellis, Archts., Manning Chambers, Toronto.

Hamilton, Ont.—Until June 28 by S. H. Kent, City Clk., for carpentry, plumbing and drainage, roofing and sheet metal work, steel roof trusses, etc., for Gage Ave. sewage disposal pumping station.

Ottawa, Ont.—Until June 28 by R. C. Desrochers, Secy. Dept. Pub. Wks., for erecting an agricultural building at Experimental Farm, Ottawa.

Until July 9 by G. J. Desnarats, Deputy Minister Naval Service, Dept. Naval Service, Ottawa, for erecting buildings for Life Savings Station at Point Pelee on Lake Erie, Ont.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**New Hampshire.**—Contracts awarded by Bd. Control, Concord, as follows: Dormitory and horse barn at School for Feeble Minded, Laconia, F. A. Rumney, Portland, Me., at $30,989; plumbing and heating, Treffle Raiche, at $5,800; dormitory addition at Normal School, Keene, Nashua Bldg. Co. at $21,274, and heating and plumbing, Nims & Simpson, Keene, $3,735.

★**Boston, Mass.**—Contract for erecting Parker St. wing to Wentworth Inst. awarded Geo. A. Fuller Co., Board Trade Bldg., at about $45,000.

★**Dalton, Mass.**—Contract for additions to 2 schools awarded John Dwyer, of Depot St., Dalton, at $27,300.

★**Springfield, Mass.**—Contract to erect 3 brick blocks on Holland St. awarded E. J. Pinney, Springfield, by O'Neil Realty Assoc.

★**New London, Conn.**—Contract for erecting group of brick and fireproof 3-story buildings for the Loomis Inst. awarded Central Bldg. Co., Worcester; cost about $100,000.

★**Wallingford, Conn.**—Contract to erect first unit of Masonic Temple addition awarded Chas. W. Murdock, New Haven.

★**Utica, N. Y.**—Contract for erecting 4-story brick and stone building on Genesee St. for St. Elizabeth Hospital awarded Pius Kener & Sons, Utica. Cost about $200,000. T. P. Barnett of St. Louis, Mo., and Edw. J. Berg of Utica, Archts.

★**Blackwood, N. J.**—Contract awarded Geo. Bachman, Camden, for alterations to county insane asylum, at $21,702, and Otto W. Lamb, Lemberg, for plumbing, at $3,500.

★**Blairsville, Pa.**—Contract awarded by Bd. School Controllers for erecting high school to Kratt & Agnew, of Lorain, O., or Pittsburgh; cost $60,000. C. C. & A. L. Thayer, Archts., New Castle.

Philadelphia, Pa.—**Lowest** bid to erect 3-story brick, stone and terra cotta police and fire station at 22d St. and Hunting Park Ave. submitted by H. H. Wehmeyer, at $122,863; Simon & Bassett, Archts., 1112 Chestnut St.

★**Pittsburgh, Pa.**—Contracts for erecting asylum for males at Marshalsea awarded by Dept. Charities, Pittsburgh, as follows: General contract, Thos. Reilley, 5872 Ellsworth St., $251,900; plumbing, Buerkle Plumbing Co., 319 2d Ave., $23,297; heating, Burns-Fleming Co., 815 Forbes St., $32,740.

Pittsburgh, Pa.—Lowest bid opened June 22 by Hyatt M. Cribbs, Co. Compt., for rough excavation work in connection with the city and county building was submitted by M. O'Herron, at $1.23 per cu. yd.; about 26,000 cu. yds. to be excavated and cost is estimated at about $60,000.

Reading, Pa.—John Lowry, Jr., New York, submitted lowest bid for erecting post office addition, at $90,880.

★**Youngwood, Pa.**—Contract for erecting brick school awarded Walters & Jones, Scottdale, at $27,068.

★**Columbia, S. C.**—Contract for 8-room addition to Logan School awarded Water Constr. Co., Columbia, at $31,830.

★**Albany, Ga.**—Contract to erect grammar school awarded A. C. Knight, Albany, at $25,974; plumbing, Eatman Plumb. Co., Albany, $2,745; Eichelberg Htg. Co., Atlanta, $2,400.

★**Amory, Miss.**—Contract for erecting high school (bids opened June 8) awarded Inglenook Constr. Co., Birmingham, Ala., at $23,439.

★**Louisville, Ky.**—Contract for erecting Wm. B. Belknap School awarded Alt Bldg. Co. at $68,500; heating and ventilating to H. Netherton & Co. at $10,898.

★**Bellaire, O.**—Contract to erect Farmers & Merchants Natl. Bank awarded R. R. Kitchen & Co., Wheeling, W. Va.; heating and plumbing, Kyle & Co., Wheeling, W. Va.; cost $40,000. C. W. Bates, Wheeling, W. Va., Archt.

★**Minerva, O.**—Contract for erecting high school (bids opened June 11) awarded Willing Bros., Bellevue, for general construction, at $44,525; plumbing, gasfitting, sewers, heating, ventilating and heat regulation, Huffman & Conklin, Columbus, at $8,680. Andrew Dietrich, Clk. Bd. Educ.

★**Springfield, O.**—Contract awarded by Bd. Educ. (W. H. Holmes, Clk.) to erect 12-room school in Northern Heights addition to Springfield, to Paul Zeazell, of Springfield, at $24,382 (bids opened June 18). Plumbing let to Victor Plumbing Co., Springfield. Robt. C. Gotwald, Archt., Springfield.

★**Columbus, Ind.**—Contract for erecting vocational school awarded Dunlap & Co., Columbus, at $26,353. Marshall E. Van Arman, Archt., Indianapolis.

★**Ottawa, Ill.**—Contract awarded by Bd. Educ. to erect 3-story high school to J. L. Simmons, of Chicago, for general construction and Hatfield Electric Co., of Indianapolis, for electric work. Plumbing and heating not yet let. Wm. B. Ittner, Archt., St. Louis, Mo.

Rock Island, Ill.—Lowest bid opened June 3 for erecting county jail submitted by P. H. Lorenz, Moline, at $36,790; plumbing, Channon & Dufva, $11,710; also heating at $10,911; steel cell work, Van Dorn Iron Works, $25,879.

★**Ames, Ia.**—Contract for erecting nurses' lodge at Michigan Soldiers Home awarded Hauser-Owen Ames Co., at $66,030, including heating, plumbing, etc. Robinson & Campau, Archts.

★**Missouri Valley, Ia.**—Contract for erecting high school awarded C. C. Morgard & Son, Council Bluffs, at $60,000.

★**St. Paul, Minn.**—Contract awarded by C. H. Johnston, Archt., Capital Bank Bldg., Boyd Constr. Co., St. Paul, to erect addition to St. Luke's Hospital and chapel, 5 stories and basement, 45 x 90 ft., at $60,000.

★**Kearney, Neb.**—Contract to erect parochial school awarded A. Litchenberg, Hastings, at $23,000, and for heating and plumbing to P. M. Rajar, of Holdredge.

★**Denton, Tex.**—Contracts for high school awarded as follows: General contract to A. W. Flynt, of Ft. Worth, at $39,444; plumbing, M. B. Whitlock & Co., Denton, $3,450; heating, J. W. Morris, Ft. Worth, $3,185.

★**Marshall, Tex.**—Contract to erect administration building at College of Marshall awarded Caddo Constr. Co., Muskogee, Okla.; cost $74,480.

Martin, Tex.—Following are two lowest bids opened June 14 by Superv. Archt., Washington, D. C., for erecting U. S. Post Office—(a) limestone, (b) sandstone: V. E. Taylor, Ennis, (a) $44,650, (b) $44,750; R. P. Farnsworth & Co., Fayetteville, Tenn., (a) $53,000; Geo. A. Shaul, Seneca, Kan., (b) $47,625.

Oklahoma City, Okla.—Following are four lowest bids opened June 7 by Capitol Bldg. Comn. for erecting new State Capitol building: Manhattan Constr. Co., Muskogee, Okla., (Bedford stone) $1,316,653; John Gill Constr. Co., Jefferson City, Mo. (Oklahoma marble), $1,387,000; Pelligreen Constr. Co., St. Louis, Mo., (Oklahoma marble) $1,495,435; Jas. Stewart & Co., New York, (Oklahoma marble) $1,589,000.

★**Bremerton, Wash.**—Contract for erecting fireproof storehouse at Naval Station, Puget Sound, awarded Martin Dugan, Seattle, at $36,513.

★**Spokane, Wash.**—Contract to erect 4-story reinforced concrete and steel warehouse for W. P. Fuller Co., Paint Mfrs., awarded Colonial Bldg Co., Spokane, at approximately $100,000.

★**Walla Walla, Wash.**—Reported contract to erect court house awarded J. B. Sweatt Co., Spokane, at $157,000 for Indiana limestone.

Los Angeles, Cal.—Lowest bid received for erecting public buildings were as follows: 2-story brick and concrete school on Budlong Ave., Alex. Grant, Builders Exchange, at $41,533; Ann St. School, John Simpson & Co., 203 Baker-Detwiler Bldg., at $63,942; alterations and additions to County Supervisors office, Hall of Records, F. O. Engstrum Co., 500 Seaton St., at $26,562.

★**Ft. William, Ont.**—Contract to erect 1-story brick and stone registry office building awarded by Provincial Council to M. H. Braden, Ft. William, at about $27,000.

★**Victoria, B. C.**—Contract for erecting observatory on Little Saanich Mountain awarded McAlpine Robertson Co., Vancouver, at $75,000.

PRIVATE BUILDINGS

PROPOSED WORK.

East Boston, Mass.—Plans prepared by F. A. Norcross, 46 Cornhill St., Boston, for brick, stone and granite theater to be erected at 36 Bennington St. for Jacob Shapiro; cost $100,000.

Cambridge, Mass.—The E. A. B. Apartment Trust, Boston, intends erecting 6-story brick and limestone apartment house on Massachusetts Ave.

St. Paul R. C. Church intends erecting $85,000 brick and concrete church.

Springfield, Mass.—Plans being prepared by H. L. Sprague, 310 Main St., for 3-story fireproof store and business building to be erected on Fort St.

Bath, N. Y.—Bath Natl. Bank intends erecting on Liberty St. 3-story bank and office building.

Buffalo, N. Y.—Plans being prepared by Colson & Hudson, 35 Dun Bldg., for 5-story brick, terra cotta and steel apartment house to be erected at Delaware Bay and Bryant St. by Chas. Mosier, 1266 Seneca St.

New York, N. Y.—Plans filed for following buildings: 5-story brick apartment house at Academy St. and Vermilyea Ave. for Loyal Bldg. Co., cost $50,000; Frankford & Kirchner, Archts., 830 Westchester Ave.; two 5-story brick apartments at 163d St. and Stebbins Ave. for Schlessinger & Gillman Constr. Co., cost $105,000; Moore & Landseidel, Archts., 3d Ave. and 149 St.; 5-story brick tenement at Tremont and East Anthony Aves. for Davidson Ave Realty Co., cost $75,000; Lucian Pisciotta, Archt., 391 E. 140th St.; 5-story brick tenement at University Ave. and 190th St. for Geo. Coburn Constr. Co., cost $50,000; Moore & Landseidel, Archts., 3d Ave. and 148th St.; four 5-story tenements at University Ave. and Brandt St. for 1640 University Ave., Inc., cost $200,000; Emery Roth & Kremyberg, Architect Co., Archts., 1029 E. 163d St.

Asbury Park, N. J.—Second M. E. Church intends erecting $25,000 edifice.

Newark, N. J.—Plans prepared by Alfred Peter, Newark, for brick addition to St. Peter's Orphan Asylum, 334 Lyons Ave.; cost $25,000.

Philadelphia, Pa.—Plans being prepared by Fredk. Webber, Morris Bldg., for 10-story brick and steel loft building to be erected at 9th and Samson Sts. by Wetherill estate.

Clinton & Russell, 32 Nassau St., New York, prepared plans for 5-story brick terra cotta and stone, 130 x 160 ft., apartment house at 41st St. and Baltimore Ave.

Plans about completed by Furness, Evans & Co., Provident Bldg., and McKim, Mead & White, New York, Assoc. Archts., for brick, stone, steel and concrete bank building to be erected at 1416 Chestnut St. for Franklin Natl. Bank.

Wharton Memorial M. E. Church, 54th and Catharine Sts., intends erecting addition to Sunday school building; cost $30,000.

Pittsburgh, Pa.—Plans completed by John T. Comes and John E. Kauser, Renshaw Bldg., for 1-story brick and stone church on Mission St. Southside for St. Joseph R. C. Church; cost $40,000.

Plans about completed by John T. Comes, 1005 Fifth Ave. for 1-story brick and steel church to be erected at Fifth Ave. and Robinson St. for St. Agnes R. C. Church; cost $80,000.

Sunbury, Pa.—Plans for First United Evangelical Church, brick and stone, being prepared by A. A. Richter, Reading; cost $35,000.

Waynesboro, Pa.—Plans prepared for 3-story business building and theater to be erected on Main St. by Arcade Co.

Washington, D. C.—Plans completed by Harry Wardman, for 4-story apartment house to be erected on California and 18th Sts., at a cost of $5,000.

Moundsville, W. Va.—St. Francis Xavier R. C. Church intends erecting $75,000 edifice.

Atlanta, Ga.—Plans prepared by Morgan & Dillon, Grant Bldg., for 4-story steel frame and pressed brick business building to be erected on Whitehall St. by Mrs. Mary G. Thurman; cost $50,000.

Sanford, Fla.—Plans reported being prepared by W. B. Talley, Jacksonville, for 75-room hotel which Geo. Mason, Mason Hotel, Jacksonville, intends erecting here.

Birmingham, Ala.—Louis and Herman Saks Clothing Co. will erect 5-story building on Florence Hotel site; cost $150,000.

Dothan, Ala.—First Baptist Church intends erecting $35,000 edifice.

Nashville, Tenn.—Marr & Holman, Stahlman Bldg., architects for 3-story reinforced concrete, brick and steel moving picture theatre to be erected on 6th Ave. and Capitol Boule. by W. H. Wassman, Nashville.

Lexington, Ky.—Broadway Christian Church authorized Bldg. Com. to have plans prepared for $75,000 edifice.

Cincinnati, O.—Working plans being prepared by Elzner & Anderson, Ingalls Bldg., for 9-story Central Branch Y. M. C. A. building at Canal and Elm Sts.; cost, $400,000.

Cleveland, O.—Neighbors Motor Co., 1918 Euclid Ave. to erect 3-story fireproof building at 30th St. and Chester Ave.

Cleveland Telephone Co. plans to make improvements including new exchange; cost about $250,000.

Columbus, O.—Plans completed by Wilbur T. Mills, McCune Bldg., for 5-story $30,000 building at 66 E. Chestnut St. for Marietta Paint & Color Co.

Dayton, O.—Plans prepared by Pretzinger & Musselman, Dayton, for brick lodge building for the Eagles on S. Main St.; cost, $70,000.

Wm. H. Simms intends to erect on N. Jefferson and 3d Sts. 5-story steel and concrete building; cost $100,000. Frank Hill Smith, Archt., Main and 2d Sts.

Tiffin, O.—First Presbyterian Church intends erecting $25,000 parish house.

Reported Junior O. U. A. M. propose erecting girls' dormitory and numerous other improvements at the National Orphans' Home.

Chicago, Ill.—Plans being prepared by Chas. S. Frost, 105 S. La Salle St., for 4-story office building which Chicago & Northwestern Ry. will erect on Ravenswood Park and Lawrence Ave.; cost $250,000.

Edw. N. Bertha, 6 E. Lake St. reported intends erecting at Stony Island Ave. and 16th St. apartment house costing $175,000.

Danville, Ill.—Masons plan to erect $150,000 temple.

Milwaukee, Wis.—Plans prepared by R. Messmer & Bro., Milwaukee, for 3-story brick and concrete hall for Moritz Arndt Lodge I. O. O. F. at 1075 Third St.; cost $45,000.

Building to be erected for St. Catharine Home on present site on Sycamore St.; cost $70,000

Superior, Wis. — Bldg. Com. Roman Catholic Diocese will soon let contract for erecting orphanage; cost about $100,000. E. M. Ulrich, Cleveland, O., Archt.

Ames, Ia.—Ames Chapter Phi Delta Theta reported planning $25,000 club house.

Des Moines, Ia.—Grocers Wholesale Co. plans erecting 3-story building; cost $50,000.

Des Moines, Ia.—H. D. Rawson will erect at 13th and Locust Sts. a 4-story apartment house costing $75,000.

Minneapolis, Minn. — Gamble-Robinson Commission Co., 222 6th St., approved plans for 6 or 8-story building; cost $100,000.

St. Paul, Minn.—Permit issued to M. P. Ryan, 813 N. Y. Life Bldg., for erecting 2 10-story brick and tile hotel and store building at St. Peter and Exchange Sts.; total cost $155,000.

Topeka, Kan.—Lodges 458 and 565 of the Independent Order of Odd Fellows propose erecting $30,000 lodge-office building.

St. Louis, Mo.—Plans prepared by Albert B. Groves, 314 N. 4th St., for 3-story terra cotta office building at 8th and Chestnut Sts. by Oreon E. and R. G. Scott; cost $50,000.

Seattle, Wash.—Plans being prepared by Howells & Stokes, Henry Bldg., for brick building which Metropolitan Bldg. Co., Henry Bldg. will erect on 5th Ave, and Seneca St.; cost $100,000. Bids for construction will be received about July 10.

BIDS DESIRED.

Frostburg, Md.—Until June 29 by Geo. F. Sansbury, Archt., Cumberland, for erecting Salem Reformed Church. Geo. Knieriem, Chmn. Bldg. Com.

Savannah, Ga.—Reported desired until June 29 by Dennison & Hirons, Archts., 475 Fifth Ave., New York, for alterations to National Bank of Savannah Building; cost $50,000.

Memphis, Tenn.—Reported desired until July 1 for erecting 2-story warehouse for Dawson Mfg. Co.; cost $30,000.

Dayton, O.—Reported desired until July 1 by Albert Pretzinger & Edw. P. Musselman, Archts., 1155 Reibold Bldg., for erecting a 3-story lodge building; cost $80,000.

Milwaukee, Wis.—Reported desired until June 26 by Kirchoff & Rose, Archts., Majestic Bldg., for erecting Palace Hippodrome theater, store and office building, 4-story, brick concrete and steel; cost $400,000.

Emporia, Kan.—Until July 12 by Bd. Control, Masonic Fraternity (S. W. Parker, Chmn.), for erecting 3-story addition and remodeling present Masonic Temple, brick and stone. C. W. Squires, Archt., Emporia.

Marceline, Mo.—Reported desired until July 12 by W. E. Parks, Secy. Bldg. Com. for erecting 3-story store and lodge building for the I. O. O. F. F. B. Fitch, Archt.

Galveston, Tex.—Until July 5 by L. S. Green, Archt., 1111 American Natl. Insurance Bldg., for erecting 6-story fireproof office building.

PRICES AND LETTINGS.

★Indicates award of contract.

★Albany, N. Y.—Contract for addition and improvements to Strand Hotel, costing about $30,000, was awarded to Irwin & Leighton, of Philadelphia, Pa.

★Syracuse, N. Y.—Contract to erect 7-story and basement structural steel warehouse with Watson Unit System of concrete floors awarded by Syracuse Cold Storage Co. to Chas. D. Watson, Syracuse.

★Philadelphia, Pa.—Contract for erecting granite and marble memorial mausoleum in Holy Cross Cemetery for late Bartholomew Shea awarded by Executors of Shea Estate to Presbery Coykendall Co., 198 Bway., New York, at $74,050.

★Pittsburgh, Pa. — Contract awarded Geo. A. Fuller Co., Oliver Bldg., for erecting Frick Arcade Building, at 5th Ave. and Grant St. Cost of building complete about $2,500,000. F. J. Osterling, Archt., Pittsburgh.

★Scranton, Pa.—Contract for granite and terra cotta superstructure for Scranton Life Insurance Co.'s Building on Spruce St. and Adams Ave. awarded F. D. Hyde, New York.

★Redfield, S. D.—Contract for erecting building for Merchants Bank, awarded to H. F. Stolter, of Redfield, F. H. Ellerbe, Archt., Endicott Bldg., St. Paul, Minn.

★Mobile, Ala.—Contract awarded by Gulf Coast Fair Assoc. to Jett-Muths Constr. Co. for erecting 3-story fine arts building; cost $30,000.

★Paris, Ky.—Contract for erecting 5-story building for First Natl. Bank awarded Owens Constr. Co., Louisville. Weber, Werner & Adkins, Archts., Cincinnati, O.

NEW INDUSTRIAL PLANTS

PROPOSED WORK.

Lawrence, Mass.—Geo. C. Kunhardt Co. is planning 5 story factory addition 106 ft. long concrete, brick and steel.

Bridgeport, Conn.—Citizens voted June 20 to issue bonds to establish municipal ice plant.

Waterbury, Conn.—Scoville Mfg. Co. is planning to erect 2 brick factories, one 1-story, 100 x 40 ft., and a 5-story addition to present plant, 280 ft. long.

Brooklyn, N. Y.—Plans filed for 10-story reinforced concrete building to be erected for Gretsch Bros. on Bway. and Berry St., Eastern Dist.; cost $375,000. Wm. Higginson, Archt., 13 Park Row, New York.

Jamestown, N. Y.—Plans being prepared by H. P. Sheldon & Sons, Providence, R. I., for 1-story manufacturing plant to be erected for the Gurney Ball Bearing Co.

New York, N. Y.—Plans filed for 9-story fireproof hog abbatoir at 630 W. 40th St. for Jos. Stern & Son, Inc.; cost $180,000. E. J. Poiret, Archt., 616 W. 40th St.

Waterport, N. Y.—Growers Cold Storage Co., Inc., Waterport, organized to erect in Waterport a 50,000-bbl. capacity chemical cold storage plant with modern equipment. G. Ray Fuller, Waterport, and Benj. G. Wilson, Carlton, among the incorporators.

West Sand Lake, N. Y.—Plans being prepared by C. G. Ogden, Albany, for a 3-story factory for McLaren Knitting Co.; cost $60,000.

Kenilworth, N. J.—American Locomotive Co. and Westinghouse Electric Co. wil combine in building plant for manufacture of cartridges.

Ellwood City, Pa.—Plans completed for several mills to be erected at plant of Shelby Tube Co. Additions and other improvements, it is reported, will cost about $1,000,000.

Milton, Pa.—Local plant of American Car & Fdry Co. to be improved at a cost of $50,000. B. Budd Cannon, Resident Mgr.

Pittsburgh, Pa.—Reported Aetna Chemical Co. will erect 3 chemical plants here.

United State Steel Corporation, according to press reports, intends erecting a plant near Pittsburgh for manufacture of zinc and by-products to cost $2,500,000.

Wilmington, Del.—Surveys being made for Plant No. 3 to be erected by Du Pont Powder Co.

Blakely, Ga.—Citizens voted in favor of municipal ice plant in connection with water and light plant.

Douglas, Ga.—Cotton compress costing $40,000 to be erected here. Mr. Bruce, of Brunswick, interested.

Marianna, Fla.—City considering erecting municipal ice plant.

Andalusia, Ala.—Farmers of South Alabama, especially Covington and Geneva Counties, contemplate erecting packing plant at Andalusia; cost including equipment $125,000. T. E. Henderson, Cashier First Natl. Bank, may be able to give further information.

Birmingham, Ala.—Plans being prepared by W. T. Warren, Birmingham, for 2-story brick manufacturing plant, 100 x 140 ft., for Cruse-Crawford Co., Ave. B and 22d St.

Phoenix City, Ala.—Alabama Georgia Packing Co., reported formed to erect packing plant and abattoir including 60 ton refrigerating plant; capacity, 20,000 beeves and 50,000 hogs annually.

Knoxville, Tenn.—Permit issued to Fulton Mfg. Co. for plant; cost $50,000.

Cleveland, O.—Plans prepared by Christian, Schwarzenberg & Gaede, 1900 Euclid Ave., for 4-story manufacturing building to be erected for Richman Bros. Co., at E. 55th and Luther Sts.; cost $250,000.

Dayton, O.—C. C. Wilson intends erecting a plant for manufacture of agricultural implements on S. Summit St.

East Liverpool, O.—Columbia Sheet Steel Co., it is reported, will erect plant here.

Hamilton, O. — Herring - Hall - Marvin Safe Co. will erect $40,000 addition to plant. Elmer E. Watson, Gen. Superv. Local Plant.

Indianapolis, Ind.—E. C. Atkins & Co. filed plans for 2 story brick and reinforced concrete factory 100 x 140 ft.; cost, $130,000.

Detroit, Mich.—Ford Motor Car Co. contemplates erecting a blast furnace and factories near village of Oakwood for manufacture of tractor engines; also homes for employees.

Tacoma, Wash.—Sperry Flour Co. having plans prepared by Bullard & Hill, Provident Bldg., for $65,000 addition to plant in this city.

Salt Lake City, Utah.—Plans completed by Ware & Traganza, Utah Savings and Trust Bldg., for 6-story fireproof factory to be erected at 4 W. and 5 S. Sts. for Purity Biscuit Co.; cost, with machinery, about $100,000. V. A. Tracy, Mgr.

Price Mining Co. of the Big Cottonwood Dist. wil instal electrically driven compressor and power drills.

Plummer, Idaho.—Reported Perth Amboy Terra Cotta Co., Perth Amboy, N. J., plans to erect 10 kiln brick plant here, costing $50,000.

Fernie, B. C.—Reported Crow's Nest Pass Coal Co. will erect plant for manufacture of by-products such as sulphate of ammonia, ammoniacal liquor, benzol and tar, etc. Cost, $500,000.

BIDS DESIRED.

Marcus Hook, Pa.—Reported desired until June 29 by Viscose Co. for erecting one-story brick 153x423 ft. and 2-story brick and concrete 44x73 ft. factory buildings. Ballinger & Perret, Archts., Philadelphia.

Philadelphia, Pa.—By Peuckert & Wunder, Archts. and Engrs., 310 Chestnut St., for erecting 4-story reinforced concrete, mill building, at Kensington Ave. and Frankford Creek, Frankford, Philadelphia, for Julius A. Gebauer. Steel sash and modern equipment to be installed; also large power plant.

PRICES AND LETTINGS.

★Indicates award of contract.

★Woonsocket, R. I.—Contract to erect 5-story, 50 x 120 ft., reinforced concrete manufacturing building for Taft Peirce Mfg. Co. awarded Turner Constr. Co., 11 Bway., New York. Timms & Chapman, Archts. and Engrs., 315 5th Ave., New York.

★New Britain, Conn.—Contract awarded to B. H. Hibbard Co. for erecting 5-story brick fireproof building on Church St. for Union Wks.

★Brockton, N. Y.—Contract for erecting grape juice factory for Peerless Food Products Co. awarded to E. J. Bailey at about $60,000.

★New Castle, Pa.—Contract awarded McClintic & Marshall Co., Pittsburgh, for erecting new buildings at plant of Standard Steel Co.; also for additions to present buildings.

★Wausau, Wis.—Contract for erecting packing plant for Farmers' Co-operative Packing Co. awarded to F. W. Krause, Wausau.

★Colusa, Cal.—Contract awarded D. J. Hayes Co., San Francisco, for erecting a 4-story mil and 2-story warehouse for Colusa Rice Milling Co.

MISCELLANEOUS

PROPOSED WORK.

Beach Bathhouse, etc.—Boston, Mass.—City Council considering issue of $85,000 bonds to purchase and improve Tenean Beach, including erection of a $30,000 concrete bath house.

Lumber, Etc.—Panama.—Until July 9 by Maj. F. C. Boggs, Corps Engrs., U. S. A., General Purchasing Office, the Panama Canal, Washington, D. C., for white maple and mahogany lumber, pig iron, flush pipe, valves, cocks, etc., according to Circular 941.

BIDS DESIRED.

Sprinkler System in Bldg. 24, Boston, Mass.—Until July 10 by H. R. Stanford, Ch. Bureau Yards & Docks, Navy Dept., Washington, D. C. for an automatic sprinkler system in building No. 24, Navy Yard. Specification No. 2170.

Cement—Massachusetts.—Until June 29 by Massachusetts Highway Comn. (Wm. D. Sohier, Chmn.), Boston, for furnishing about 7500 bbls. Portland cement.

Stalls and Fixtures in Market—New York, N. Y.—Time for receiving bids for stall structures and fixtures in Washington Market has been extended to June 28. Chas. Houchin Higgins, Consulting Engr., 10 Church St.

Elevators—Baltimore, Md.—Until July 14 by Jas. A. Wetmore, Acting Superv. Archt., Washington, D. C. for installing an electric freight elevator, hoistway, etc. in U. S. Post Office, Court House, etc.

Lift—Washington, D. C.—Until July 15 by Jas. A. Wetmore, Acting Superv. Archt., Washington, D. C. for a hydraulic lift in U. S .Treasury Building.

Lumber—New Orleans, La.—Until July 2 by Lighthouse Inspector, furnishing cypress lumber delivered at New Orleans or at Pointe aux Herbes Light Station, La.

Filling—Bay St. Louis, Miss.—Until July 2 by Jos. Cazeneud, for filling in by suction dredge behind sea wall about 56,000 cu. yds.

Timber—Detroit, Mich.—Until July 31 by U. S. Engineer Office, 337 Federal Bldg., for furnishing and delivering 236 M ft. fir timber, advertised in Engineering Record.

Elevator — Beaumont, Tex. — Reported desired until June 28 by J. F. Jefferdon, Co. Clk., for installing passenger elevator in court house.

Elevator—Port Townsend, Wash.—Until July 21 by Jas. A. Wetmore, Acting Superv. Archt., Washington, D. C., for installing an electric passenger elevator in U. S. Marine Hospital.

Lumber—Towing Machines, etc.—Panama.—By Maj. F. C. Boggs, Corps. Engrs. U. S. A., General Purchasing Officer, Panama Canal, Washington, D. C., for following materials:

Until June 29—Circular 940—Greenheart lumber.

Until Aug. 16—Circular 938—12 electric towing locomotives for canal locks.

PRICES AND LETTINGS.

★*Indicates award of contract.*

★**Plaza Improvement—Albany, N. Y.**—Contract awarded to Wm. F. Campion for improving the Plaza, at $142,244. Work includes raising grade of Bway., Beaver St., Hudson Ave., Division and Hamilton Sts., improvement of Steamboat Sq. and new Quay St.

★**Cranes—New Orleans, La.**—Contract awarded by Comrs. Port of New Orleans, for erecting 15 or more electric traveling cranes to Pawling & Harnischfeger (bids opened June 9).

Sprinkler System for Warehouse—Seattle, Wash.—Lowest bid opened June 16 by Port Seattle Comn., for installation of sprinkler system and other fire apparatus for fruit storage building, Eastways terminals, submitted by Fire Protection & Equipment Co., Seattle, at $12,180.

★**Oil Reservoir — Los Angeles, Cal.**—Contract reported awarded to Leonardt & Peck, H. W. Hellman Bldg., Los Angeles, to construct concrete oil reservoir at Point Firmin for General Petroleum Co., to cost $60,000.

Proposals

For Proposals Advertised, see Pages 45, 46 and 47.

WATERWORKS.

Bids. Close.		See Eng. Record.
Jun. 28.	Water Works Improv., Media, Pa. Adv. Jun. 19.	Jun. 19
Jun. 29.	Water Works, Rittman, O. (2 Prop.) Adv. Jun. 12 to 26.	Jun. 12
Jun. 30.	Reservoir, Etc., St. Mary's, W. Va.	Jun. 19
Jun. 30.	Pump, Machinery, Chicago, Ill.	Jun. 19
Jun. 30.	Pump, Baltimore, Md. Adv. Jun. 19.	Jun. 19
Jun. 30.	Waterworks Improvements, Pratt, Kan.	Jun. 26
Jun. 30.	Steel Pipe, etc., for Tunnel Work, Cleveland, O.	Jun. 26
Jun. 30.	System, Kohler, Wis.	Jun. 26
Jul. 1.	Dam, Columbus, O. Adv. Jun. 5.	Jun. 5
July 1.	Nonconductor covering at Pumping Station, Chicago, Ill.	Jun. 26
July 6.	Waterworks, Thief River Falls, Minn.	Jun. 26
July 6.	Water Works, Powell, Wyo.	Jun. 26
July 7.	Rack, shutters, etc., Contract 149, New York, N. Y. Adv. Jun. 19, 26.	Jun. 19
July 7.	Contract 140, New York, N. Y.	Jun. 26
July 7.	Reservoir and Filtration Plant, Port Henry, N. Y. Adv. Jun. 26.	Jun. 26
July 7.	System, Canova, S. D.	Jun. 26
July 8.	Pipe, Covington, Ky.	Jun. 19
July 8.	Generator Equipment, Chicago, Ill.	Jun. 26
July 9.	Standpipe, San Juan, P. R.	Jun 19
July 12.	Improvements, Covington, Va. Adv. Jun. 19, 26.	Jun. 19
July 12.	Turbines, Ryde, New South Wales	Jun. 19
July 12.	Pump, Saltsburg, Pa.	Jun. 26
July 14.	Improvement, Beaumont, Tex.	Jun. 26

SEWERAGE AND SEWAGE DISPOSAL.

Bids Close		See Eng. Record.
Jun. 29.	Newton, Ia. Adv. Jun. 19.	Jun. 19
Jun. 29.	Columbus, O. Adv. Jun. 19.	Jun. 19
Jun. 29.	Columbus, O. Adv. Jun. 19, 26.	Jun. 19
Jun. 29.	Glencoe, Minn.	Jun. 19
Jun. 29.	Port Angeles, Wash.	Jun. 19
Jun. 29.	Columbus, O.	Jun. 26
Jun. 29.	Boston, Mass.	Jun. 26
Jun. 30.	Winston-Salem, N. C.	Jun. 19
Jun. 30.	Kohler, Wis.	Jun. 26
July 1.	Madisonville, Ky.	Jun. 26
July 1.	Gibson City, Ill.	Jun. 26
July 2.	Brewster, O.	Jun. 19
July 2.	Sheboygan, Wis. Adv. Jun. 26.	Jun. 26
July 2.	Chicago, Ill.	Jun. 26
July 6.	Elroy, Wis.	Jun. 26
July 6.	Portland, Me.	Jun. 26
July 7.	East St. Louis, Ill.	Jun. 26
July 7.	Cleveland, O. Adv. Jun. 26.	Jun. 26
July 12.	Avalon, N. J. Adv. Jun. 26.	Jun. 26
July 12.	Peoria, Ill. Adv. Jun. 26.	Jun. 26
July 12.	Syracuse, N. Y.	Jun. 26

BRIDGES.

Bids Close		See Eng. Record.
Jun. 28.	Rockford, Ill. Adv. Jun. 19.	Jun. 19
Jun. 29.	Scarsdale, N. Y. Adv. June 12.	Jun. 12
Jun. 29.	St. Louis, Mo.	Jun. 12
Jun. 30.	Clinton, Ill.	Jun. 26
Jun. 30.	Illinois	Jun. 26
Jun. 30.	Brantford, Ont.	Jun. 26
July 1.	Lake Charles, La.	Jun. 26
July 1.	Cincinnati, O.	Jun. 26
July 1.	Painting bridges, Springfield, Mass.	Jun. 26
July 2.	Cincinnati, O.	Jun. 19
July 2.	Canon Falls, Minn.	Jun. 26
July 2.	Highland Park, Ill. Adv. Jun. 26.	Jun. 26
July 5.	Colfax, Wash.	Jun. 19
July 5.	Columbus, Miss.	Jun. 19
July 5.	Gulfport, Miss.	Jun. 26
July 6.	Orange, Cal.	Jun. 19
July 6.	Hankinson, N. D.	Jun. 19
July 6.	Colfax, Wash.	Jun. 19
July 6.	San José, Cal.	Jun. 26
July 6.	Lewisburg, W. Va.	Jun. 26
July 6.	Milton, Va.	Jun. 26
July 6.	Lajunta, Colo.	Jun. 26
July 6.	Frankfort, Ky.	Jun. 26
July 6.	Norwalk, O.	Jun. 26
July 6.	Indiana	Jun. 26
July 7.	Washington	Jun. 19
July 7.	Canton, O.	Jun. 19
July 7.	Canton, O.	Jun. 26
July 8.	Bismarck, N. D.	Jun. 26
July 8.	Jamestown, N. D.	Jun. 26
July 8.	Springfield, Mass. Adv. Jun. 26.	Jun. 26
July 8.	Philadelphia, Pa. Adv. Jun. 26.	Jun. 26
July 9.	Cincinnati O.	Jun. 19
July 9.	Lansing, Mich.	Jun. 26
July 12.	Lebanon, O. Adv. Jun. 26.	Jun. 19
July 12.	Hartland, Minn.	Jun. 26
July 12.	Seattle, Wash.	Jun. 26
July 12.	North Timiskaming, Que.	Jun. 26
July 15.	Williston, N. D.	Jun. 26
July 23.	Seattle, Wash. Adv. Jun. 19, 26.	Jun. 19

PAVING AND ROADS.

Bids Close		See Eng. Record.
Jun. 29.	Grand View Heights, O.	Jun. 5
Jun. 29.	Toledo, O.	Jun. 5
Jun. 29.	Merrill, Wis.	Jun. 12
Jun. 29.	Scarsdale, N. Y. Adv. June 12.	Jun. 12
Jun. 29.	Malvern, O.	Jun. 19
Jun. 29.	Seattle, Wash.	Jun. 19
Jun. 29.	Fairmont, Minn.	Jun. 19
Jun. 29.	Meriden, Conn. Adv. Jun. 19.	Jun. 19
Jun. 29.	Carlisle, Ky.	Jun. 19
Jun. 29.	Massachusetts	Jun. 26
Jun. 29.	Madison, Wis.	Jun. 26
Jun. 29.	Buffalo, N. Y.	Jun. 26
Jun. 29.	Upper Sandusky, O.	Jun. 29
Jun. 29.	Glasco, Kan.	Jun. 26
Jun. 29.	Ohio.	Jun. 26
Jun. 29.	Alden, N. Y.	Jun. 26
Jun. 29.	Kansas City, Mo.	Jun. 26
Jun. 30.	De Land, Fla. (Two prop.) Adv. June 5, 12.	Jun. 5
Jun. 30.	Trenton, N. J.	Jun. 19
Jun. 30.	Mays Station, Ill	Jun. 19
Jun. 30.	Stamford, Conn. Adv. Jun. 19.	Jun. 19
Jun. 30.	Brooklyn, N. Y.	Jun. 26
July 1.	Lebanon, Pa. Adv. Jun. 19, 26.	Jun. 19
July 1.	Newark, N. J.	Jun. 26
July 1.	Salt Lake City, Utah	Jun. 26
July 1.	Covington, Ky.	Jun. 26
July 1.	Indiana	Jun. 26
July 2.	Philadelphia, Pa. Adv. Jun. 19, 26.	Jun. 19
July 2.	Granite Falls, Minn.	Jun. 19
July 2.	Kearney, Neb.	Jun. 26
July 2.	Belvidere, N. J.	Jun. 26
July 2.	Ashland, O.	Jun. 26
July 2.	Connecticut	Jun. 26
July 2.	Warwick, R. I.	Jun. 26
July 2.	Buffalo, N. Y.	Jun. 26
July 2.	Rutherford, N. J.	Jun. 26
July 2.	Chicago, Ill.	Jun. 26
July 2.	Highland Park, Ill. Adv. Jun. 26.	Jun. 26
July 3.	Tiverton, R. I.	Jun. 19
July 3.	Frederick, Md.	Jun. 19
July 3.	Cleveland, O.	Jun. 19
July 5.	Indiana	Jun. 26
July 5.	Bloomfield, N. J.	Jun. 26
July 6.	Mansfield, La. Adv. June 12.	Jun. 12
July 6.	Hopkins, Minn.	Jun. 19
July 6.	Lockland, O.	Jun. 19
July 6.	Trenton, Ga.	Jun. 19
July 6.	Corsicanna, Tex.	Jun. 26
July 6.	Cathlamet, Wash.	Jun. 26
July 6.	Seattle, Wash.	Jun. 26
July 6.	Kearney, Neb.	Jun. 26
July 6.	Niagara Falls, N. Y.	Jun. 26
July 6.	Wenatchee, Wash.	Jun. 26
July 6.	Indiana	Jun. 26
July 7.	Albany, N. Y. Adv. Jun. 19, 26.	Jun. 19
July 7.	Mt. Vernon, Wash.	Jun. 26
July 8.	Pittsburgh, Pa.	Jun. 26
July 8.	Indiana	Jun. 26
July 8.	Clearwater, Fla.	Jun. 26
July 9.	Cincinnati, O.	Jun. 19
July 9.	Chattanooga, Tenn. Adv. Jun. 26.	Jun. 26
July 12.	Washington	Jun. 19
July 12.	Repair wharves, Portland, Ore. Adv. Jun. 19, 26.	Jun. 19
July 12.	Moscow, Idaho.	Jun. 26
July 12.	Seattle, Wash.	Jun. 26
July 13.	Alabama	Jun. 19
July 13.	Chestertown, Md.	Jun. 26
July 13.	Albany, N. Y. Adv. Jun. 26.	Jun. 26
July 14.	Youngstown, O.	Jun. 26
July 15.	Albany, N. Y. Adv. Jun. 26.	Jun. 26
July 20.	Oelwein, Ia.	Jun. 19
July 24.	Spencer, Ia.	Jun. 26
July 25.	Tiffin, O.	Jun. 26

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Bids Close		See Eng. Record.
Jun. 28.	Dredging, New York, N. Y. Adv. Jun. 5 to 26.	Jun. 5
Jun 28.	Jetty Repair, Wilmington, Del. Adv. Jun. 12 to 26.	Jun. 12
Jun. 29.	Repairing Wall and Breakwater, Block Island, R. I. Adv. Jun. 5 to 26.	Jun. 5
Jun. 29.	Ditch, Morris, Minn.	Jun. 19
Jun. 29.	Ditches, Rosseau, Minn.	Jun. 26
Jun. 29.	Dam, etc., Sylacauga, Ala.	Jun. 26
Jun. 30.	Steel for Lock Construction, Sault Ste. Marie, Mich. Adv. May 29 to June 19.	May 29
Jun. 30.	Air Compressor Plant, Pittsburgh, Pa. Adv. Jun. 19, 26.	Jun. 19
Jun. 30.	Ferry and Dock improvement, West Point, N. Y. Adv. Jun. 5 to 26.	Jun. 5
Jun. 30.	Gates for Irrigation Dam, El Paso, Tex. Adv. June 12.	Jun. 12
Jul. 1.	Irrigation, Great Falls, Mont.	Jun. 5
July 1.	Ditches, Bartow, Fla.	Jun. 12
July 2.	Spillway, Etc., at Dam, Middletown, O.	Jun. 19
July 2.	Retaining Wall, Cincinnati, O.	Jun. 19
July 7.	Drainage Work, West Lake, La.	Jun. 26
July 8.	Riprap, Philadelphia, Pa. Adv. Jun. 19, 26.	Jun. 19
July 9.	Drainage Work, Selmer, Tenn.	Jun. 26
July 12.	Repairs to wharves, Portland, Ore. Adv. Jun. 19, 26.	Jun. 19
July 12.	Dredging, Philadelphia, Pa.	Jun. 19
July 12.	Irrigation Work, Grand Junction, Colo. Adv. Jun. 19.	Jun. 19
July 12.	Shed, Panama	Jun. 19
July 13.	Steel Doors on Pier, Panama Adv. Jun. 26.	Jun. 26
July 15.	Timber Wharf, Charleston, S. C.	Jun. 19
July 15.	Irrigation Work, Goshen, Utah	Jun. 19
July 15.	Dredging, New York, N. Y. Adv. Jun. 19, 26.	Jun. 19
July. 19.	Steel Gates, Wilmington, N. C. Adv. Jun. 19, 26.	Jun. 19
July 31.	Dredging, Pearl Harbor, Hawaii	Jun. 19
Aug. 24.	Dredger, Adelaide, Australia	Jun. 19
July 24.	Dredging, Jacksonville, Fla. Adv. Jun. 26.	Jun. 26
Aug. 15.	Dredge Work, Rosseau, Minn.	Jun. 26
———	State Canal Work, Mechanicsville, N. Y. Adv. Jun. 19, 26.	Jun. 19

PUBLIC BUILDINGS AND SCHOOLS.

Bids Close.		See Eng. Record.
Jun. 29.	Charleston, W. Va.	Jun. 5
Jun. 29.	Fedora, S. D.	Jun. 12
Jun. 29.	Ft. Myer, Va. Adv. Jun. 19, 26.	Jun. 19
Jun. 29.	Middletown, N. Y. Adv. Jun. 19, 26.	Jun. 19
Jun. 29.	Maine	Jun. 19
Jun. 29.	Wolf Point, Mont.	Jun. 19
Jun. 29.	Hosmer, S. D.	Jun. 19
Jun. 29.	Indianapolis, Ind.	Jun. 19
Jun. 29.	Marlin, Tex.	Jun. 26
Jun. 29.	Ft. Myer, Va.	Jun. 26
Jun. 29.	Brooklyn, N. Y.	Jun. 26
Jun. 29.	Owatonna, Minn.	Jun. 26
Jun. 29.	Kansas City, Mo.	Jun. 26
Jun. 30.	Chapel Hill, N. C.	Jun. 12
Jun. 30.	Muncy, Pa.	Jun. 12
Jun. 30.	Winchester, Ind.	Jun. 19
Jun. 30.	Sault Ste. Marie, Mich.	Jun. 19
Jun. 30.	Crow Agency, Mont.	Jun. 19
Jun. 30.	Marion, O.	Jun. 19
Jun. 30.	Syracuse, N. Y.	Jun. 19
Jun. 30.	Washington, D. C.	Jun. 19
Jun. 30.	Syracuse, N. Y.	Jun. 26
Jun. 30.	King City, Neb.	Jun. 26
Jun. 30.	Portland, Ore.	Jun. 26
Jun. 30.	Chicago, Ill.	Jun. 26
Jun. 30.	Marion, O.	Jun. 26
Jun. 30.	Winchester, Ind.	Jun. 26
July 1.	Boston, Mass.	May 22
July 1.	Renova, Pa. Adv. June 12.	Jun. 12
July 1.	Plans, Springfield, Mass.	Jun. 12
July 1.	Cedartown, Ga.	Jun. 19
July 1.	Leonia, Kan.	Jun. 26
July 1.	Warren, R. I.	Jun. 26
July 1.	Bradley, Ark.	Jun. 26
July 2.	Charlotte, N. C.	May 29
July 2.	Ireton, Ia.	Jun. 19
July 2.	Brookville, O.	Jun. 19
July 2.	Milbank, S. D.	Jun. 19
July 2.	Lansing, Mich.	Jun. 26
July 3.	Hanover, O.	Jun. 19
July 3.	Alleene, Ark.	Jun. 26
July 3.	Davenport, Wash.	Jun. 26
July 5.	Anniston, N. D.	Jun. 19
July 5.	Mountain Home, Idaho. Adv. Jun. 26.	Jun. 26
July 5.	Des Moines, Ia.	Jun. 26
July 6.	Savannah, Ga.	Jun. 12
July 6.	Douglas, Wyo.	Jun. 19
July 6.	Cherokee, Ia.	Jun. 19
July 6.	Hamden, O.	Jun. 26
July 6.	Bloomfield, Neb.	Jun. 26
July 6.	Hardin, Mont.	Jun. 26
July 7.	San Francisco, Cal.	Jun. 5
July 7.	Brandywine, Md.	Jun. 19
July 7.	Indianapolis, Ind.	Jun. 19
July 7.	Kellerton, Ia.	Jun. 19
July 7.	Chico, Cal.	Jun. 19
July 7.	Jackson, Miss.	Jun. 26
July 7.	Woodward, Ia.	Jun. 26
July 7.	Allentown, Pa.	Jun. 26
July 7.	Delhi, N. Y.	Jun. 26
July 8.	Des Moines, Ia.	Jun. 5
July 8.	Fultonham, O.	Jun. 19
July 8.	Canton, O.	Jun. 26
July 9.	Cleveland, O.	Jun. 19
July 9.	Beardstown, Ill.	Jun. 5
July 9.	Torrington, Wyo.	Jun. 19
July 9.	Tompkinsville, N. Y.	Jun. 26
July 9.	Ottawa, Ont.	Jun. 26
July 10.	Swanton, O.	Jun. 19
July 12.	Wanamie, Pa.	Jun. 26
July 13.	Washington, D. C.	May 22
July 14.	Galveston, Tex.	Jun. 19
July 15.	Minneapolis, Minn.	Jun. 26
July 17.	Washington, D. C.	Jun. 26
July 20.	Indianapolis, Ind.	Jun. 12
July 21.	New Orleans, La. Adv. Jun. 19, 26.	Jun. 19
July 24.	San Diego, Cal.	Jun. 26
July 26.	Webb City, Mo.	Jun. 19
July 29.	Quitman, Ga.	Jun. 26
July 30.	Albion, Mich.	Jun. 26
Aug. 1.	Seattle, Wash.	Jun. 5
Aug. 16.	Baltimore, Md. Adv. Jun. 26.	Jun. 26

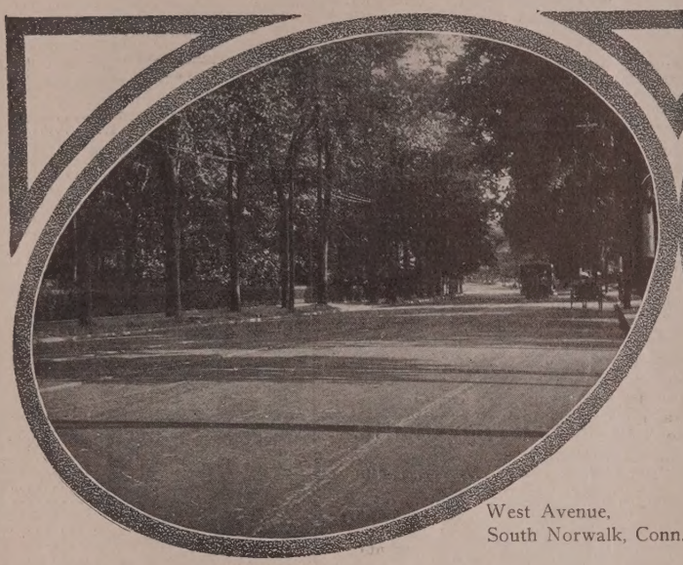
PRIVATE BUILDINGS.

Bids Close.		See Eng. Record.
Jun. 29.	Manning, N. D.	Jun. 19
Jun. 29.	Frostsburg, Md.	Jun. 26
Jun. 29.	Savannah, Ga.	Jun. 26
July 1.	Marion, O.	Jun. 19
July 1.	Dayton, O.	Jun. 26
July 1.	Memphis, Tenn.	Jun. 26
July 5.	Galveston, Tex.	Jun. 26
July 10.	Minot, N. D.	Jun. 19
July 12.	Emporia, Kan.	Jun. 26
July 12.	Marceline, Mo.	Jun. 26
July 15.	Vancouver, B. C.	Jun. 12

MISCELLANEOUS.

Bids Close.		See Eng. Record.
Jun. 29.	Stone, Memphis, Tenn.	Jun. 12
Jun. 29.	Elevator Enclosure in Hospital, Springfield, O.	Jun. 19
Jun. 29.	Street Cleaning, Roanoke, Va.	Jun. 19
Jun. 29.	Lumber, Panama.	Jun. 26
Jun. 29.	Cement, Massachusetts.	Jun. 26
Jun. 29.	Tracks on Bridge, Cincinnati, O.	Jun. 26
Jun. 30.	Rip Rap Stone, Memphis, Tenn.	Jun. 12
Jun. 30.	Traction engine for roads, Atlanta, Ga. Adv. Jun. 19.	Jun. 19
July 1.	Crane, Halifax, N. S.	May 22
July 1.	Corrugated roofing, soil pipe, etc., Panama	Jun. 19
July 2.	Lumber, New Orleans, La.	Jun. 26
July 2.	Filling in Bay, St. Louis, Miss.	Jun. 26
July 7.	Laundry equipment, Sonyea, N. Y. Adv. Jun. 19, 26.	Jun. 19
July 9.	El. Rys., Brooklyn, N. Y. Adv. Jun. 26.	Jun. 26
July 9.	Lumber, Etc., Panama.	Jun. 26
July 10.	Sprinkling System, Boston, Mass.	Jun. 26
July 12.	Tunnel, Pittsburgh, Pa. Adv. Jun. 5 to 26.	Jun. 5
July 14.	Elevators, Baltimore, Md.	Jun. 26
July 15.	Lift, Washington, D. C.	Jun. 26
July 21.	Elevator, Port Townsend, Wash.	Jun. 26
July 31.	Timber, Detroit, Mich. Adv. Jun. 26.	Jun. 26
Aug. 16.	Towing Locomotives, etc., Panama.	Jun. 26

Wood Block Pavement



West Avenue,
South Norwalk, Conn.

Avery Street,
Detroit, Mich.

Pleasing the property owners—

WHERE new pavements are to be built by assessment on the abutting property the attitude of the property owners has an important bearing on the selection of the type of pavement to be used.

Although Wood Block pavement is by no means the cheapest in its initial cost, it has proved many times to be the pavement on which the property owners most readily agree.

Property owners value its quietness under traffic, which improves the value of their land. This is true both of office building districts, such as lower New York, and in residential streets.

They like Wood Block pavement also because they know that it will last longer than any other pavement—even granite. Mr. J. H. Weinburger, the engineer in charge of the pavements of Queens Borough, New York City, says that the Wood Block pavements in his borough "have been so uniformly satisfactory that in many instances property owners are petitioning that Creosoted Wood Block be used for streets of both heavy and light traffic."

Ever since the first Wood Block pavement was laid in New York, in 1903, there has been a steadily increasing demand for it all over the city. The first strip of Wood Block pavement on Warren Street brought in a stream of petitions from nearby property owners for the extension of "the silent pavement." It is easy to believe that such pressure, coming from the people who bear the cost, will eventually bring New York to a parity with London, which has 300 miles of wood pavement, and Paris, which has 400 miles.

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